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UNIVERSITY OF ALBERTA

Coping with Negative Peer Interactions

By

Wanda Rowat

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

Department of Educational Psychology

EDMONTON, ALBERTA

Fall, 1991

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled Coping With Negative Peer Interactions submitted by Wanda Rowat in partial fulfillment of the requirements for the degree of Master of Education in Educational Psychology.

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ABSTRACT

Many children in our society have difficulty dealing with the stressful experiences they face while interacting with their peers. The Children's Social Coping Inventory (CSCI) was designed to identify the type of strategies that children use to deal with negative peer interactions. This study examined the structural validity of this instrument and investigated the relationship between children's coping styles and their self concept, anxiety level, peer relatedness, and popularity. Two-hundred and forty-two children in grades four, five, and six completed four questionnaires and a measure of popularity. Principal components factor analyses strongly supported the construct validity of the Anxiety Amplification and Projection subscales of the CSCI, but the factor structure of the Postive Coping and Denial subscales was less clearly defined. The endorsement of Positive Coping and Anxiety Amplification by girls was significantly higher than that of boys. Girls also demonstrated lower levels of Global Self Worth, higher levels of anxiety, and more concern regarding their level of psychological closeness with their peers than did boys. Boys endorsed Projection more highly than girls. Analysis of variance indicated significant differences in self concept, anxiety level, and peer relatedness between those using effective coping strategies and those using less effective coping strategies. Children whose responses indicated that they blamed others and/or focused on the negative emotions surrounding the negative peer interaction, demonstrated lower levels of self concept and Emotional Security with peers, higher levels of anxiety, and less satisfaction with the level of psychological proximity they experienced with their peers. Children with low sociometric status demonstrated lower levels of self concept, higher levels of anxiety, and a significantly higher endorsement of Projection strategies on the CSCI than did more popular children. Postive correlations were found between measures of self concept, Emotional Security with peers, and popularity. Measures of self concept were negatively correlated with anxiety level and desire for increased proximity with peers. Results of this

study suggest that the CSCI is a useful instrument to identifying children using ineffective coping strategies and that many students using these strategies share common levels of self concept, anxiety, and peer relatedness.

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CHAPTER ONE

THE PROBLEM

Introduction

Although stress is an inevitable factor in human existence, coping styles vary greatly among individuals and many people cannot cope effectively with the stress of life (Honig, 1986a; Thoresen & Eagleston, 1983). Manitzicopoulos (1990) defined coping as "a process that the individual undertakes to manage demands that are perceived as taxing his or her resources" (p. 138). One's tendency to respond in a particular way when confronted with a specific set of circumstances may be termed their coping style (Compas, 1987). LeCroy and Rose (1986) suggested that a child's ability to cope adequately with life's challenges is reflected in their psycho-social adjustment.

> "Too many children have not developed effective means by which to inoculate themselves against such stresses and as a result grow up fearful, emotionally disturbed, incompetent, and maladjusted" (LeCroy & Rose, 1986, p. 5).

Although teaching children how to cope with stress from an early age is of critical importance, our knowledge about the kinds of situations that produce stress in children and the variables affecting their coping strategies is limited (Ryan, 1988). However, this body of knowledge is growing rapidly as a result of an increasing number of research studies that attempt to measure and categorize children's coping strategies. Once specific coping strategies can be identified and measured, stress management programs can be implemented to aid those children who need intervention (Strauss, Lahey, Frick, Frame, & Hynd, 1988).

Background of the Problem

In the past, the focus of most research on stress and children was on identifying the activities and situations that children find stressful (Garmezy, 1983). Identifying children's coping strategies is a more difficult task because these responses are seldom overt, which makes it difficult to evaluate whether or not effective strategies are being used to cope with the stressors being experienced. Also, it may be difficult for children to accurately recall and verbalize the strategies they use in stressful situations (Compas, 1987).

Recently, a number of studies have attempted to measure children's perceptions of stress and their responses to it (Band & Weiss, 1988; Mantzicopoulos, 1990; Ryan, 1989). Interviews have most often been used to obtain these data but these procedures are very time consuming and involve gathering, transcribing, coding, categorizing, and analyzing the data (Dise-Lewis, 1988; Wertlieb, Weigel, & Feldstein, 1987). An easier and more objective method is to use a questionnaire with items that represent a variety of coping strategies (Mellor-Crummey, 1989). In this type of self-report instrument, children are asked to rate each item as to how likely they would be to use such a coping strategy. A questionnaire such as this limits the necessity for children to generate alternative coping strategies. If a questionnaire can reveal the same information as that obtained by the interview process, this technique would be more practical to use for identifying children who need to learn more effective coping strategies. In addition, having children complete self-report inventories may reduce the pressure to provide socially desirable responses (Mellor-Crummey, 1989).

Once an instrument is designed to identify children's coping strategies, it may be possible to identify factors that are associated with ineffective coping strategies. How are factors such as self esteem and peer relationships related to one's ability to cope with stress? Do children with effective coping strategies experience lower levels of anxiety? Significant correlations have been found between one's ability to deal with stress and a variety of emotional and social factors (Dise-Lewis, 1988; Straus et al., 1988; Wertlieb, Weigel & Feldstein, 1989).

Statement of the Problem

The research problem of the present study was to examine the structural validity of the Children's Social Coping Inventory (CSCI) (Mellor-Crummey, 1989) and to identify relationships between a child's responses on the CSCI, and measures of self concept, social and general anxiety, peer relatedness, and popularity. The author of this measure investigated this problem with children in grades four, five and six. The present study was a partial replication of Mellor-Crummey's PhD Dissertation.

Rationale

The research contained herein was an investigation of whether a child's predominant coping style in negative peer interactions was correlated with the child's level of self concept, peer and overall anxiety, peer relatedness, and popularity. Moreover, the research was an investigation of whether the CSCI has structural validity in regards to the four theoretically derived subscales: Positive Coping, Denial, Anxiety Amplification, and Projection. The study was designed to test the following assumptions:

1. Children use various coping responses to adjust to stress but one or two strategies are dominant and relatively stable within a specific context. This pattern of coping within a given situation can be referred to one's coping style.

2. Self worth is positively correlated with Positive Coping and Denial coping styles and negatively correlated with Anxiety Amplification and Projection coping styles.

3. Peer Anxiety and Overall Anxiety is postively correlated with Anxiety Amplification and Projection coping styles and negatively correlated with Positive Coping and Denial coping styles.

4. Emotional Security with peers and popularity are positively correlated with Positive Coping and Denial coping styles and negatively correlated with Anxiety Amplification and Projection coping styles.

Significance of the Study

If results of this study provide support for the internal validity of the CSCI, this study may contribute to the further development and refinement of this measure. Publication and use of this questionnaire may provide teachers, psychologists, and others who are interested in children's psychological adjustment, with a simple and easy means to select children who may be in need of stress management training. If the results demonstrate that the validity of the CSCI is not supported, new insights regarding future pursuits of this type of measure may be recommended.

The present study will also be useful in providing information as to how one's coping style is related to feelings about self and others. If specific characteristics are evident in a majority children who cannot cope effectively, these psychological and interpersonal factors also need to be addressed when providing stress management training. For example, if low self esteem and poor social interaction skills are highly correlated with ineffective coping strategies, then intervention is likely required in each of these areas before coping strategies can be readily learned by these children.

Limitations and Delimitations

One limitation of this study is that the generalizability of the results may be appropriate only for children in grades four, five, and six who come from families in the lower to middle socio-economic levels. Also, developmental changes in coping strategies of these children may be unclear due to the restricted age range. Thirdly, the CSCI focusses only on coping strategies for negative peer interactions. More research is needed to determine the extent that strategies used in this context are transferrable to other stressful situations.

The present study was also limited by the use of questionnaires that were still in the exploratory research stage. Although use of these measures served to investigate the psychometric properties of the questionnaires, the results of the present research must be considered tentative. Future studies that correlate the CSCI with more psychometrically sound tests may provide more conclusive evidence of the relationship between coping style and psychological and interpersonal factors.

Research on procedures used to examine children's popularity with peers has shown that both negative and positive peer nominations are valuable in identifying the sociometric classification of children. For example, asking children who they like the most and who they like the least allows for the discrimination between neglected and rejected children (Lazarus & Weinstock, 1984). However, due to ethical considerations, only postive peer nominations were used in the present study. This investigation focussed on popularity in a broad sense and using only positive peer nominations was deemed appropriate. Therefore, the term "popularity" used in this study should be considered as somewhat restricted, compared to the more complex sociometric measures that could have been used.

DEFINITIONS AND TERMINOLOGY

Coping style - one's tendency to respond in a particular way when confronted with a specific set of circumstances (Compas, 1987).

Coping strategies - specific responses that are often learned and may not be seen as enduring personality traits (Ryan, 1989).

Children's Social Coping Inventory (CSCI) - a self-report instrument designed to classify pre-adolescent children's responses to stressful social situations into four coping styles: Postive Coping, Denial, Anxiety Amplification, and Projection (Mellor-Crummey, 1989).

The Self-Perception Profile for Children (SPP) - a self-report instrument designed to assess children's self competence and self adequacy in a five specific domains. A profile of the subscale scores provides a measure of the child's self-concept (Harter, 1985).

The Children's Concerns Inventory (CCI) - a self-report instrument for elementary-aged children which provides both a profile of specific anxieties and a sum score of general anxiousness (Buhrmester, 1985).

The Peer Relatedness Scale - a self-report instrument designed to measure the quality of children's relationship with peers along two dimensions: Emotional Security and Desire for Psychological Proximity with peers (Wellborn and Connell, 1987).

Popularity - a measure of social competence that is reflected in high postive nomination scores (Connolly, 1983).

CHAPTER TWO

LITERATURE REVIEW

This chapter contains a review of the literature concerning children and their responses to stressful situations. The types of procedures that have been used to identify events found to be stressful to children are discussed. In addition, the work of researchers who have attempted to categorize children's responses to these situations is presented.

Stress Inventories for Children

Children experience stress in a vast number of situations. The Daily Hassle Inventory and Major Event Inventory (Elwood, 1987) are based on discussions with children in grades four and seven on events that they experienced as stressful. Children's responses to these discussions were grouped into approximately 30 scenerios that were found to be stressful for children. These inventories have shown to have strong content, concurrent, and construct validity and moderate reliability (Elwood, 1987). Omizo, Omizo, and Suzuki (1988) also used the discussion group procedure and found that the majority of the participants (grades one to twelve) expressed concerns regarding family and school related problems. Elementary children had specific concerns about being disciplined, not fitting in with others, and having feelings of gloom or insecurity. Dise-Lewis (1988) designed an inventory for life stress events of 12 to 14 year-old children.

Dickey and Hendersen (1989) interviewed 141 kindergarten, grade one, and grade three children and identified 347 stressors experienced by these children. The stressors were grouped into eight categories and ranked in order of their frequency. School work and peer relations were the most common stressors, followed by personal injury and loss, loss of personal comfort, discipline, relations with teachers, family events, and miscellaneous other stressors. The Children's Concerns Inventory (CCI) (Burhmester, 1985) is a questionnaire based on what children reported caused them to worry or get nervous. This inventory was used in the present study because it was designed for children in grades three to six and it provided information on the following specific concern areas: schoolwork performance, peer anxiety, adult discipline, and sports competition. The overall score provided an index of general anxiousness. Incorporating a measure of anxiety into the present study allowed the researcher to investigate how anxiety levels are related to effective and ineffective coping styles.

Specific Contexts of Children's Stress

Although a large variety of specific stressors have been identified through research studies, the context of the situation often influences the use of coping strategies (Folkman & Lazurus, 1980; 1985). In an effort to more closely examine a child's ability to cope, a number of researchers have focussed their investigations on a single context. Forman and O'Malley (1984) and Tero and Connell (1984) considered children's responses to school stress. Brown, O'Keefe, Sanders, and Baker (1986) investigated children's coping regarding visits to the dentist and public speaking engagements. Jenkins, Smith, and Graham (1989) examined children's strategies for coping with parental quarrels. Mellor-Crummey, Connell, and Trachtenberg (1989) and Lepore, Kiely, Bempechat, and London (1989) examined children's coping in social situations involving negative peer interactions. Although the amount of transfer between coping responses in different situations is unclear, examining a single context is useful because specific responses can be categorized and measured more accurately (Altshuler & Ruble, 1989). Once data are generated involving specific situations, attempts can be made to determine if, and to what degree, these strategies generalize to other situations.

The present study investigated the coping strategies of children in grades four, five, and six within the context of negative peer interactions. Specifically, children were asked to identify their responses to those situations in which their friends did not like their ideas and when their friends left them out of activities. Most children demonstrate some anxiety when they experience conflicts with their peers and these two situations were found to occur quite frequently in the lives of elementary-aged children (Mellor-Crummey, 1989).

Variables Related to Children's Coping Strategies

Although situational factors have been shown to influence one's coping strategies, studies of coping reveal that much of the variance in coping styles cannot be accounted for by context alone (Holahan & Moos, 1987). In their study with 800 adults, Holahan and Moos (1987) found that education, income, personality disposition, and personal and environmental resources play an important role in one's use of active and avoidance coping strategies. Studies with children have also identified variables found to interact with context to influence perceptions of stress and the use of coping strategies. A number of researchers have concluded that gender, developmental age, social support, socioeconomic status, cognitive self talk, and experience with stressful events in the past often affect a child's coping strategies (Brophy & Erickson, 1990; Dubow & Tisak, 1989). In addition, personal resources and styles, perceived social support, personal control, and problem solving abilities are intrapsychic variables that play a role in coping with stress (Compas, 1987; Kendall, Howard, & Epps, 1988; McCoy & Masters, 1985).

Mellor-Crummey (1989), examined children's perceptions of control and self regulation, self worth, self acceptance, self efficacy in peer interactions, and relatedness to peers. Each was found to be related to coping style in predictable ways. For example, children who used effective coping strategies demonstrated perceptions of personal control and confidence in social situations, higher self worth, and greater peer acceptance. Children who were unable to cope effectively with stress, however, demonstrated an external locus of control and lacked the confidence, self worth, and close peer relations experienced by children who used effective coping strategies. In addition, she found that children who were able to cope effectively reported lower levels of anxiety.

Self Concept and Coping with Stress. Self concept has become an area of considerable study in the past decade and interest has arisen regarding how it relates to children's adjustment (Kolligian & Sternberg, 1989). A research study with children in grades four, five, and six reported that self esteem was negatively correlated (-.51 to -.71) with measures of trait anxiety (Dorr, Pozner, & Stephens, 1985). Although the coping strategies of these children were not examined, one can assume that children with high anxiety levels were likely not using effective coping strategies. This proposition was supported by Mellor-Crummey (1989) who found a moderate correlation between high levels of anxiety and ineffective coping strategies.

Honig (1986) and Milgram (1989) referred to various research studies in their discussion of the relationship between self esteem and adequate coping with external stressors of children. Both authors concluded that intrapersonal resources, such as high self esteem, facilitate children's coping with stressful life events. Pyszczynski, Greenberg, Solomon, and Hamilton (1990) attempt to explain this relationship in Terror Management Theory. The proponents of this theory suggest that self esteem is critical because it acts as a buffer against the anxiety that results when people see their own vulnerability and mortality. A person who can realistically accept the fact that they cannot be the best or most popular in every activity, will be more likely to adapt in positive ways to stressful situations.

Haltiwanger and Harter (1988) attempted to identify prototypical social behaviors that discriminated between high and low self esteem preschool children. Demonstrating adaptive reactions to change or stress was one of the two primary categories of items that defined the high self esteem child. Likewise, Dubow and Tisak (1989) studied children in grades three to five and found that one's ability to solve social problems in effective ways can serve to buffer the negative effects of stress. To examine the relationship between self esteem and social coping strategies, the Self Perception Profile for Children was one of the questionnaires included in the present study.

Peer Relationships and Coping with Stress. The ability of a child to relate to his/her peers is a dimension that has been found to be related to anxiety and stress in children

(Connolly, 1983). A number of researchers have documented the observation that levels of social acceptance vary considerably among children and that some children can be identified as socially neglected or socially rejected. The use of procedures such as peer nominations, peer ratings, and peer descriptions have enabled researchers to classify and compare children according to their sociometric status. Asking children for both positive and negative peer nominations allows the researcher to distinguish between neglected and rejected children (Lazarus & Weinstock, 1984).

Sociometric status has been correlated with self esteem, anxiety disorders, interpersonal problem solving ability, social interaction patterns, and specific behavioral characteristics (Cantrell & Prinz, 1985; Chiu, 1987; Roopnarine & Adams, 1987; Rubin, 1990; White & Blackham, 1985). Results indicated that moderately to highly popular children have higher self esteem, more joint positive play interactions, and less aggressive and disruptive behaviors. Children with clinically diagnosed anxiety disorders are significantly less liked than normal children (Strauss, et al., 1988). A study by Boivin and Begin (1989) examined the relationship between peer status and self perception of nine and eleven year-old children. Their results indicated that popular children showed more positive self perceptions when compared to neglected and average children and their responses on the SPP indicated higher levels of self esteem. Half of the children categorized as rejected children showed negative self perceptions and low self-esteem.

The present study attempted to shed light on the relationship between one's level of popularity, emotional security with peers, and desire for increased emotional proximity with them. In addition, the following question was addressed: How is a child's peer relationships related to the child's ability to cope effectively when faced with negative peer interactions?

Techniques for Measuring Coping

A number of different techniques have been implemented by researchers to identify children's coping strategies. Interviews have most often been used to obtain a description of the types of strategies children use (Wertlieb, Weigel, & Feldstein, 1987). Band and Weisz (1988) asked six, nine, and twelve year-old children to reflect on stressful situations in the last year and to comment on the things they did to cope with how they were feeling at the time. Altshuler and Ruble (1989) interviewed 72 children ranging in age from five to twelve years regarding their knowledge of available strategies to cope with uncontrollable stress. Dickey and Hendersen (1989) also interviewed young children as to what they did to make themselves feel better when they were worried or upset. All of these interview studies provided descriptive information about children's coping responses by gathering, transcribing, categorizing, coding, and analyzing children's responses.

An alternative to the time consuming interview process is to use a questionnaire in which the items selected by the subject correspond to previously used coping strategies. This process provides similar data about children's coping styles as does the interview, but requires much less time. Mellor-Crummey (1989) designed a questionnaire which allows a researcher to identify a child's coping style based on the child's responses to 35 items. High scores and score configurations allow a child to be categorized as using predominately one of four types of coping strategies: Positive Coping, Denial, Projection, and Anxiety Amplification. The present study investigated the structural validity of this new measure. Specifically, the question asked was whether the four dimensions of coping were distinct and sufficient categories of how children typically respond in situations of negative peer interactions?

Coping Strategies

The variety of approaches and methodologies used to examine coping strategies have resulted in the identification of a large number of categories of coping responses. Although many of these categories overlap, no one set of coping responses has been established. A study comparing all of the coping strategies identified through different research studies, is needed.

Some of the studies which have identified children's coping strategies are listed below. Brown, O'Keefe, Sanders and Baker (1986) identified three coping strategies of children eight to eighteen: positive self talk, task orientation and relaxation. Elwood (1987) held discussions with children in grades four and seven and categorized their comments into 15 different coping responses. Dise-Lewis (1988) identified similar coping strategies based on discussions with 12 to 14 year-old children. Band and Wiesz (1988) categorized children's responses into direct problem solving, problem-focussed aggression, problem-focussed avoidance, social/spiritual support, emotion focussed avoidance, and pure cognition. Altshuler and Ruble (1989) interviewed children in grades one to four and categorized their coping responses into approach, direct emotional manipulation, partial and complete avoidance, and maladadptive strategies. Dickey and Hendersen (1989) identified direct action, distraction, social support, and acceptance as the four most frequent strategies used by kindergarten, grade one and grade three students. Ryan (1989) also led discussions with school aged children which resulted in 12 categories, the most frequently used ones being: social support, avoidant activities (e.g., forget it, don't worry about it), and emotional behaviors (e.g., cry, get mad).

This wide range of categories of coping responses indicates that it is unlikely that there is one all inclusive set of coping styles. Therefore, one alternative to this dilemna is to select a set of coping responses that has support for its validity and that will provide useful and meaningful information. Mellor-Crummey (1989) selected four coping dimensions that appear useful for discriminating between children who use positive coping responses and children who use coping responses that increase their levels of anxiety. Positive Coping and Denial are identified as effective coping strategies because they reduce anxiety; Projection and Anxiety Amplification are strategies that maintain or enhance one's levels of stress. This set of coping categories is useful in that each category occurs frequently enough to warrant distinction and is suitable for discriminating between children who are coping well and those who need intervention. Although more categories may be identified in other research, this set of coping responses is practical and adequate for the specific purpose for which it was designed.

In summary, this study was designed to assess whether the coping style of children in grades four, five, and six was correlated to their self concept, social and general anxiety levels, peer relatedness, and popularity. Children whose responses indicated predominately Positive Coping or Denial coping strategies were expected to demonstrate higher levels of self concept, lower levels of Peer Anxiety and Overall Anxiety, higher Emotional Security and popularity with their peers compared to children who report using coping strategies that enhance one's level of anxiety. Relationships between the various questionnaires administered in this research was also examined. Factor analysis of the CSCI was expected to result in the four theoretically derived categories of coping styles: Positive Coping, Denial, Anxiety Amplification, and Projection.

CHAPTER THREE

METHODOLOGY

Design

The present study was based on a correlational design and examined the relationships among children's coping styles to negative peer interactions and their responses on measures of self concept, social and general anxiety, peer relatedness, and popularity. In addition, the structure of the CSCI was examined to investigate the structural validity of the measure.

Sample

Description of the Sample. The sample used in this study was based on a cluster sampling design and is illustrated in Table 1. Four schools were randomly selected from a pool of lower to middle class, surburban elementary schools in St. Albert, Alberta. Although socioeconomic status was not measured directly, an estimation was made based on the living standards of the surrounding area. Students from 17 different classes in the four schools completed the questionnaires in groups ranging from 10 to 38 students. Three students did not fully complete the questionnaire and their responses were eliminated from the analysis.

Table 1.
Sample Description

Gender	Grade 4	Grade 5	Grade 6	Totals
Girls	45	38	31	114
Boys	36	54	38	128
Totals	81	92	69	242

Recruitment of Participants. Several days prior to the testing session, information letters and consent forms were delivered to the school and then sent home with the grades four, five, and six students (See Appendices A and B). The information letter described the aims and details of the study to the parent(s) or guardian(s) and requested permission for their child to complete the questionnaire during classtime. The letter assured parents that the children's responses would be confidential and that the students were allowed to withdraw their participation from the project at any time. Fifty-one percent of the students returned their signed consent forms and participated in the study. Nine percent of the students returned forms stating that their child was not given permission to participate in the study.

Research Instruments

The subjects were administered a battery of four short questionnaires: the CSCI (Mellor-Crummey, 1989), the Self Perception Profile for Children (SPP) (Harter, 1985), the Children's Concerns Inventory (CCI) (Buhrmester, 1985), and the Relatedness Scale (Wellborn & Connell, 1987). In total, 96 items were included, as well as a brief measure of popularity with peers (See Appendices C, D, E, and F).

The Children's Social Coping Inventory (CSCI). The CSCI (Mellor-Crummey, 1989) is a newly designed questionnaire that measures how children in grades four, five, and six cope with negative peer interactions (See Appendix C). This inventory is based on the Children's Academic Coping Inventory (Tero & Connell, 1984) which identified four types of coping responses that children demonstrate in an academic setting. In using the CSCI, Mellor-Crummey (1989) found Cronbach's alpha reliability coefficients ranging from 0.64 to 0.80 for the four coping subscales of the CSCI (third version). After removing items with low factor loadings, the resulting factor analysis supported the four theoretically derived coping scales (Mellor-Crummey, 1989) (see Appendix G). Content validity was obtained by comparing the children's responses on the questionnaire to their responses to individual interviews. Although, low correlations were found between the responses, these were attributed to methodological difficulties inherent in the interview data.

To examine the construct and concurrent validity of the CSCI, Mellor-Crummey (1989) correlated the student's responses with various self-system constructs including: self-efficacy for peer interactions, perceptions of control, level of concern, relatedness to peers, self concept, and acceptance by peers. She found significant correlations while comparing these contructs and concluded that the results supported the validity of the CSCI to measure children's coping style in negative peer interactions. Discriminant validity was also examined by comparing the social coping and cognitive subscales of Tero and Connell (1984) with the above three self system measures. The children's responses on these two questionnaires were highly related. Mellor-Crummey (1989) concluded that a moderate amount of transference between social and academic situations appears to exist. External validity was also examined by using sociometric measures. Popularity correlated positively with the use of Postive Coping (ranging from 0.20 to 0.36) which the author interpreted as supporting the external validity of the CSCI (Mellor-Crummey, 1989). These results indicate that although some construct validity underlies the use of the CSCI with grades four, five, and six children, a considerable amount of variance remains unaccounted.

The 28 CSCI items used in the present study were selected from the 35 items in the third version of the CSCI. In an effort to limit the number of items presented to the subjects in this study, only seven items were included from each subscale. Items with the highest factor loadings on their corresponding factor from Mellor-Crummey's research were selected to enhance the possibility of a four factor structure. The CSCI focused on two social situations: when children are excluded from activities with their friends and when other children do not accept their ideas. The children were required to rate the degree to which they would respond in a certain way when faced with these situations. Participants rated each item on a four point Likert-type scale. The the two item stems (stem

A "When my friends leave me out" and stem B "When my friends don't go along with my ideas"), were derived from children's most common stressors related to social interactions. The items were based on the responses of children as to how they had coped in the past when they were faced with peer conflict (Mellor-Crummey, 1989).

Children were categorized into one of four predominant coping styles based on the subscale that was endorsed most strongly: Positive Coping, Anxiety Amplification, Denial, and Projection. The coping style indicates a greater tendency to use that particular type of coping response in a situation involving negative peer interactions. In addition, some children were also classified into one of two configurations: Positive Coping and Projection/Anxiety Amplification. Students whose endorsement of Positive Coping items was one standard deviation or more above the mean for their grade and whose endorsement of Anxiety Amplification and Projection items was less than one standard deviation above the mean for their grade, were placed in the Positive Coping configuration. Children whose endorsement of Anxiety Amplification or Projection items was one standard deviation above the mean for their grade and their endorsement of Positive Coping items was less than one standard deviation above the mean for their grade, were placed in the Projection/ Anxiety Amplification configuration. These classifications are identical to those of Mellor-Crummey (1989) except that children who endorsed Positive Coping items more highly than Anxiety Amplification or Projection were eliminated from the Projection/Anxiety Amplification configuration, even if they met the other criteria for that classification.

The Self Perception Profile for Children (SPP). The SPP (Harter, 1985) is a 36 item self-report measure which assesses a child's self concept and perceived competency in five domains: academic, social, athletic, physical, and behavioral. A global self worth scale is also included. Factor analysis (Harter, 1985) demonstrated a substantial five factor solution corresponding to the five theoretically derived subscales. Global Self Worth items appear to load highly on the other factors, as predicted by the authors. Chronbach's alpha reliability coefficients for the global self-worth subscale ranged from .78 to .84, and from

.75 to .80 for the social acceptance subscale. Convergent validity was also moderately supported by correlation scores with teacher ratings (.40) and sociometric measures (.59).

In the present study, responses to the global self worth and the social acceptance subscales were examined separately and an overall score was obtained for each child. Although this questionnaire was retyped into the same format as was published by the author, it was otherwise unaltered. The question format of the SPP for Children is similar to a four point Likert scale, with a score of 4 reflecting high perceived competency (see Appendix D).

The Children's Concerns Inventory (CCI). The CCI (Buhrmester, 1985) was designed to measure specific anxieties in four domains: schoolwork performance, peer anxiety, adult discipline, and sports competition. This 28 item inventory also provides an overall score of general anxiousness. Previous factor analysis resulted in a four factor solution corresponding to the author's four theoretically derived subscales (Buhrmester, 1985). Concurrent validity was also examined by comparing scores on the CCI and Spielberger's (1973) Trait Anxiety Scale. Correlations ranged from .22 to .55.

In an effort to limit the number of items presented to the subjects in this study, only the items the author reported as having the highest factor loadings were selected from each subscale. Six items from the peer acceptance subscale were included as were four items from each of the other three subscales. The peer acceptance items were examined separately and so the two additional items were included to increase the reliability of the childrens' average score. The children's Overall Anxiety and Peer Anxiety subscale scores were used in the present study and have reported alpha reliabilities of .91 and .76 (see Appendix E).

The Relatedness Scale (Wellborn & Connell, 1987) This questionnaire was designed to measure the quality of children's relationships with various peers (classmates, friends, and best friends) along two dimensions: Emotional Security and Desire for Psychological Proximity. After using this instrument with elementary and junior high school students, Lynch and Wellborn (1988) stated that it was a useful predictor of school engagement and disaffection. Several factor analyses of the Relatedness Scale resulted in satisfactory two factor solutions and reported reliability coefficients as ranging from .75 to .84 for Emotional Security items and from .77 to .88 for Desire for Psychological Proximity items (Mellor Crummey, 1989).

In the present study, each item was presented only with regards to each student's feelings when they were with their friends. Before administering this section of the questionnaire, the participants were told, "think about your friends here at school while answering these questions". The eight Emotional Security items assessed how children felt when they were with their friends. Both positive and negative feelings were presented and children were requested to identify if the statement was very true, sort of true, not very true, and not at all true for them. Five items addressed each child's desire for psychological closeness with their friends and included statements such as "I wish my friends understood me better" (see Appendix F).

Two subscale scores were obtained for each student. This was accomplished by averaging their responses to the items corresponding to each subscale. Some children were also assigned to a relatedness category (Optimal, Deprived, and Detached) based on the relation between their scores in the two subscales. Children who scored more than one standard deviation above the mean on Emotional Security and less than one standard deviation above the mean on Desire for Psychological Proximity for their grade, were assigned to the Optimal category. Students who scored below than the mean for their grade on Emotional Security and more than one standard deviation above the mean on Desire for Psychological Proximity for their grade, were assigned to the Deprived category. Finally, children who scored below the mean for their grade on both Emotional Security and Desire for Psychological Proximity were assigned to the Detached category. These categories are identical to those used by Mellor-Crummey (1989).

Sociometric Measure. The participants in this study were also given a measure of popularity using procedures similar to those used by Mellor-Crummey et al (1989). Children were asked:

> "Let's talk about some kids you know here at school. From this list, write down the name of the child you would most like to work with on a fun project in school. Now give me your second choice. Now, write down the name of the child you would most like to work with on a project that's going to be graded. Now give me your second choice. "

The names of the students who had been given parental consent were placed on the blackboard and were referred to for this section of the questionnaire. Space was provided on the questionnaire for the children to write the names of the children they wished to nominate. Based on the number of nominations each child received for the fun and graded projects and the combined total, children were classified as having low, medium, or high sociometric status. In addition, the questionnaires of children who selected each other for partners were compared to see if their coping styles matched.

Research Procedures

Development of the Questionnaire Battery. While initial contacts were being made with school district supervisors and principals, the four questionnaires were collated by the investigator. The items of the SPP and the Relatedness Scale were presented in the order established by the authors. The items of the CSCI were placed in random order, then were clustered into groups of three of four items each belonging to the same stem. The items of the CCI were also placed in random order. Although the questionnaires were stapled in the same order for each student, the order of completion by each class was counterbalanced. Each of the questionnaires, except the SPP, required the children to circle one of four responses (very true, sort of true, not very true, and not at all true) to indicate their endorsement of the preceding statement. The SSP had its own format designed by Harter (1985) (see Appendix D). All questionnaires were retyped in order to have the same font throughout the questionnaire battery. To make the questionnaire more appealing to children, new titles were given to all scales (except the SPP), legal size colored paper was used, and each page was decorated with pictures or an activity.

Administration of the Questionnaires. Once approval was granted from the appropriate committees, the investigator approached the principals and teachers of the selected schools to discuss the details of the study, to set up dates and times for testing, and to address any questions or concerns. The questionnaires were administered during classtime and required approximately 35 minutes. Data were gathered from 201 students in November and December, 1990, and from 44 students in February, 1991. Of these students, the responses of three students were dropped from the analysis because they did not fully complete the questionnaire. Standardized instructions were presented and all items were read aloud by the investigator to facilitate accurate understanding and attention (see Appendix H). Most often, teachers were not present during administration of the questionnaires but were in another room supervising the children who did not participate. The investigator and an assistant administered the questionnaires to each class and distributed lifesaver candy to the children to thank them for their participation. The assistant was also present to answer student questions and write the names of the children on the board for the sociometric measure.

After the study was completed, the school principals and teachers were sent letters describing the results of the study (see Appendix I). Parents who requested more information regarding the findings of the study were also sent follow up letters.

Preparing the Children's Responses for Analysis. After completion of the questionnaires, all items were placed in the format from the least level of endorsement scored as a one and the the highest level of endorsement scored as a four. Each student's responses were entered into one row of a Statview worksheet.[1] A column was included for identification numbers and the data were sorted by gender and grade. Totals were calculated for the required subscales in each questionnaire and columns were added which contained the child's predominant coping style and configuration. The scores for any items omitted by the children were replaced with the mean score on that item.

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[1] Statview is a statistical application package designed for the Macintosh computer. This application allows for both parametric and nonparametric analyses and was deemed to be suitable for analyses of the data collected in this study.

The children's responses to the sociometric measure were calculated manually with first choice selections receiving two points toward a popularity score and second choice selections receiving one point. Students were then categorized as low, medium, or high sociometric status compared to their classmates and the overall sample. The student's sociometric status based on the distribution of nominations in their class was the primary measure used for further analysis. This sociometric status measure was selected because it allowed comparison across classes, regardless of the number of students in the classroom. In addition, sociometric status was calculated for fun and graded projects. Students who nominated each other were examined to ascertain the effects of coping style on their nominations.

Statistical Procedures and Analysis. Correlation matrices and one and two factor analysis of variance (ANOVA) were the primary statistical procedures used in this study. Data reported to be statistically significant are at the .05 level of significance. The Scheffe test of multiple comparisons was used for post hoc analyses because it is more rigorous than other such analyses and leads to fewer significant differences. On one occasion, the Fisher PLSD test was used instead to explore whether or not the results were significant with a less rigorous procedure.

Ethical Considerations

A number of strategies were employed by the researcher in order to ensure confidentiality of subject information and informed consent. First, the research proposal was approved by the Ethics Committe of the Department of Educational Psychology and the Cooperative Activities Program at the University of Alberta. Secondly, a letter describing the study was taken home by the children to their parent(s) or guardian(s). Along with the letter was a consent form which had space for both consent and refusal of participation (see Appendix A and B). Children without parental consent did not participate in the study. In addition, the consent form clearly stated that children could withdraw from the study at any time and that all information would be kept confidential.

To further ensure confidentiality, each participant was given a set of questionnaires with an identification number attached. Children were not required to place their name on their questionnaires. In a separate file, identification numbers were matched with each child's name in order to analyze sociometric responses. Names were kept in a separate file from the questionnaires and only identification numbers were used in the data analysis. Only group scores were published in this thesis.

CHAPTER FOUR

RESULTS

The Children's Social Coping Inventory (CSCI)

Factor Analyses of the Children's Social Coping Inventory. In order to test for the presence of the four factors corresponding to the theoretically-derived subscales (Positive Coping, Denial, Anxiety Amplification, and Projection), principal components factor analyses with oblique rotation were performed on the CSCI data. When only roots greater than one were used in the analysis, a six factor solution resulted based on the 28 items (see Tables 2 and 3). All items belonging to the Anxiety Amplification and Projection subscales loaded on their corresponding factor with factor loadings of .48 or greater and with lower cross-loadings onto other factors than on their own factor. Ten of the 14 items in the Positive Coping and Denial subscales loaded on their respective factor with factor loadings of .51 or greater. Two of the Denial items had low factor loadings on their own factor (these were the same two items Mellor-Crummey (1989) identified as having low factor loadings). One of these Denial subscale items loaded highly on factor five, while the other had a moderately high negative loading on factor six. One of the Positive Coping items loaded on factor six rather than on the same factor the other five Positive Coping items loaded on. The remaining Positive Coping item had a high negative loading on factor five.

The items on the CSCI were grouped according to two types of stems: stem A "When my friends leave me out" and stem B, "When my friends don't go along with my ideas." Stem A and stem B items were analyzed separately, which resulted in a five and a four factor solution (see Tables 4 and 5). In both of these analyses, all items belonging to the Anxiety Amplification and Projection subscales loaded on their corresponding factor with factor loadings of between .44 and .84. All but four items from the other two theoretically-derived subscales loaded less than .27 on these factors. Factor analysis of items belonging to the stem A, "when my friends leave me out", resulted in a five factor solution with all but three factor values greater than .50. One Positive Coping item did not load highly on any factor, although it had a high negative loading on the Denial subscale. In addition, two Denial items loaded on the fifth factor rather than on the same factor the other denial items loaded on. Factor analysis of items belonging to the stem B, "when my friends don't go along with my ideas", resulted in the predicted four factor solution with each factor representing one of the four subscales (factor loadings of 0.44 or greater).

Table 2.
Factor Analysis for Postive Coping and Anxiety Items (Stems A and B)

Item	Subscale	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
1	PC	-.056	.152	.169	.193	-.753	-.089
7	PC	.160	-.100	-.211	.652	-.097	-.315
12	PC	.089	.224	.009	.275	.180	.501
17	PC	-.083	-.087	.016	.745	-.119	-.021
19	PC	-.114	.075	.068	.512	-.052	.368
24	PC	-.139	.147	.208	.642	-.073	.174
27	PC	.153	.004	-.107	.675	.177	.021
3	A	.760	-.021	-.023	-.070	-.038	-.175
5	A	.616	-.050	.265	-.155	-.049	.116
15	A	.670	.078	-.126	-.005	.009	-.002
16	A	.614	-.038	-.035	.106	.000	.054
20	A	.658	.028	-.084	-.038	.045	.200
21	A	.734	.145	.046	.024	-.016	.065
22	A	.734	.143	-.028	-.002	.043	-.274

Table 3
Factor Analysis for Projection and Denial Items (Stems A and B)

Item	Subscale	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
4	P	-.155	.837	-.026	.045	-.040	.026
9	P	.358	.482	-.000	-.027	-.014	-.163
10	P	-.007	.756	-.051	-.021	-.112	-.066
11	P	.345	.532	-.072	.109	.043	-.030
14	P	.264	.557	.037	-.063	.068	.132
18	P	-.014	.740	-.007	-.008	-.054	.057
28	P	.091	.602	-.164	.033	.048	.131
2	D	-.062	.063	.251	.049	.748	-.069
6	D	.180	-.338	.597	.003	.146	-.133
8	D	-.079	.376	.257	.082	.392	-.528
13	D	.007	-.198	.665	.066	-.055	-.116
23	D	-.020	.103	.677	-.000	.239	-.081
25	D	-.107	.099	.590	-.064	-.000	.360
26	D	-.070	-.098	.706	-.033	-.200	.117

The results of factor analyses performed by Mellor-Crummey (1989) were very similar to that found in the present study. In all but four cases, discrepancies were less than .18 (see Appendix G for Mellor-Crummey (1989) factor analyses of stem A and stem B combined). Two of the items with low factor loadings in the present study (items 1 and 2), had factor loadings of .53 on their corresponding factor in the Mellor-Crummey (1989) analyses. The other two items with low factor loadings (items 8 and 12) also had factor loadings of less than .27 in the Mellor-Crummey (1989) study. Factor analyses on each stem seperately was also very similar to those of Mellor-Crummey (1989), except for items 1, 23, and 25, in which considerable discrepancies were found.*

Table 4
Factor Analysis CSCI Items Stem A

Item	Subscale	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
3	A	.784	-.046	-.055	-.022	-.014
15	A	.622	.040	.030	.079	-.137
16	A	.760	-.082	.045	-.126	.167
22	A	.731	.094	.036	.154	-.083
2	D	-.018	.755	.079	.002	.284
8	D	-.022	.536	.156	.414	.154
23	D	.039	.272	.129	-.007	.713
25	D	-.077	-.080	-.005	-.025	.779
1	PC	-.024	-.696	.257	.169	.217
7	PC	.258	.017	.662	-.071	-.197
17	PC	-.068	-.012	.801	-.090	-.000
24	PC	-.026	-.010	.699	.094	.368
9	P	.377	.030	.011	.501	.047
10	P	.001	-.078	-.050	.781	-.008
18	P	-.037	.008	-.040	.750	-.054

*The investigator made an error while placing Denial items on their corresponding stem. Items 8 and 25 were included in stem A in the present study and in stem B in the Mellor-Crummey (1989) study. Also, in the present study, item 13 was placed on stem B, rather than on stem A, as in Mellor-Crummey's (1989) third version of the CSCI. However, these items were conceptually interchangable and in both studies two of the other items from the Denial subscale were placed on both stem A and stem B. These discrepancies likely do not account for the difference in factor analyses, given that two of the three misplaced items still loaded highly on their corresponding stem.

Table 5
Factor Analysis CSCI Items Stem B

Item	Subscale	Factor 1	Factor 2	Factor 3	Factor 4
5	A	.686	.176	.013	-.108
20	A	.643	-.104	-.048	.040
21	A	.691	.003	.035	.122
6	D	.198	.600	.083	-.169
13	D	.025	.743	-.023	.027
26	D	-.108	.747	-.026	.119
12	PC	.001	.017	.520	.195
19	PC	-.200	.129	.758	.011
27	PC	.230	-.126	.670	-.194
4	P	-.243	.028	.010	.787
11	P	.247	-.141	.091	.437
14	P	.193	.130	-.037	.640
28	P	.036	-.115	.002	.564

CSCI Item Means and Standard Deviations. Item means and standard deviations were calculated and results indicated that children endorsed the full range of values provided in the Likert-type scale. The use of all four alternatives by students allowed the maximum range of individual differences to be examined. Item means range from 1.69 to 3.31, with standard deviations ranging from .79 to 1.23. Table 6 summarizes CSCI item means and standard deviations from the present study as well as those found by Mellor-Crummey (1989). The subjects' mean endorsement of CSCI items was very similar to that found by Mellor-Crummey (1989).

Table 6
CSCI Item Means and Standard Deviations

Item	Present Study		Mellor-Crummey	
	Mean	St.dev.	Mean	St. dev.
1	2.93	.91	3.00	.91
2	2.25	1.00	2.60	1.02
3	2.47	1.10	2.38	1.07
4	1.99	1.05	1.93	1.09
5	2.03	1.01	2.19	.94
6	2.90	1.02	2.70	.95
7	2.94	1.03	2.97	.91
8	2.05	.98	2.35	.97
9	1.69	.97	1.74	.96
10	1.93	1.01	2.14	1.07
11	2.36	.95	2.08	1.04
12	2.36	1.02	2.25	.87
13	3.05	.99	2.85	.96
14	2.06	1.08	2.05	1.00
15	2.15	1.02	1.81	.98
16	2.62	1.04	2.50	1.02
17	2.49	1.13	2.57	1.10
18	2.18	1.23	2.25	1.12
19	3.31	.79	3.24	.88
20	1.98	.96	2.01	.97
21	2.09	1.11	2.06	1.07
22	2.49	1.09	2.22	1.07
23	2.70	1.04	2.59	.99
24	3.01	.96	2.93	.98
25	2.55	1.07	2.61	1.04
26	2.86	.99	2.69	1.04
27	2.77	1.03	3.09	.90
28	2.07	1.15	2.11	1.02

Grade and Gender Differences. Means and standard deviations for the CSCI subscales are presented by grade and gender in Table 7. A comparison of subscale means indicates that for all age groups, items which reflect Positive Coping were endorsed most frequently followed by Denial, Anxiety Amplification, and lastly Projection. These data are very similar to that found by Mellor-Crummey (1989) (see Appendix J).

Two factor ANOVAs were performed on the CSCI coping subscales to ascertain the effects of grade and gender on predominant coping style. The ANOVA data are summarized in Table 8. No main effect for grade was found for any of the four social coping styles. However, a marginal increase in the mean level of Projection with an increase in grade was obtained, especially for boys. Also, these results indicated a marginal decrease in the use of Positive Coping by grade six students when compared to students in grades four and five. Gender main effects were found at the .05 level of significance for the Positive Coping,

Table 7

CSCI Subscale Means and Standard Deviations by Grade and Gender

	Positive Coping		Anxiety		Projection		Denial	
	Mean	St.dev.	Mean	St.dev.	Mean	St.dev.	Mean	St.dev.
Gr 4-Girls	2.91	.53	2.50	.69	1.92	.69	2.58	.64
Gr 4-Boys	2.83	.67	1.90	.71	1.93	.84	2.67	.78
Grade 4	2.88	.59	2.23	.76	1.93	.76	2.62	.69
Gr 5-Girls	3.00	.45	2.70	.78	2.01	.74	2.55	.43
Gr 5-Boys	2.78	.53	2.09	.65	2.11	.79	2.63	.51
Grade 5	2.87	.51	2.34	.77	2.07	.77	2.60	.46
Gr 6-Girls	2.79	.60	2.43	.67	1.83	.52	2.52	.66
Gr 6-Boys	2.64	.53	1.99	.60	2.38	.70	2.76	.56
Grade 6	2.71	.56	2.19	.65	2.14	.70	2.65	.60
All Girls	2.91	.53	2.55	.72	1.93	.66	2.56	.58
All Boys	2.76	.57	2.01	.65	2.14	.79	2.68	.61
Total	2.83	.56	2.26	.73	2.04	.74	2.62	.60

Anxiety Amplification, and Projection subscales. Girls demonstrated significantly higher mean levels of Positive Coping and Anxiety Amplification when compared to the mean levels demonstrated by boys. Boys demonstrated higher mean levels of projection than did girls. In addition, 85% of the children using Projection as their predominant coping style were boys, and 80% of the children using Anxiety Amplification as their predominant coping style were girls.

Mellor-Crummey's (1989) results also indicated a higher endorsement of Projection for boys and a higher endorsement of Anxiety Amplification for girls. She also found grade effects in that endorsement of the Denial and Positive Coping subscales decreased with increasing grade (see Appendix J). This grade effect was not supported in the present study. However, Mellor-Crummey (1989) included grade three students in her sample which allowed for examination of a wider age range.

Table 8
ANOVA: CSCI Subscale Means by Grade and Gender

	Source:	DF:	Sum Squares	Mean Square	F-value	P-value
PC	Grade	2	1.37	.69	2.27	.106
	Gender	1	1.27	1.27	4.20	.042
	Interaction	2	.20	.10	.33	.718
A	Grade	2	2.03	1.01	2.17	.116
	Gender	1	17.83	17.83	38.24	.0001
	Interaction	2	.38	.19	.41	.666
D	Grade	2	.09	.05	.13	.878
	Gender	1	1.08	1.08	2.99	.085
	Interaction	2	.32	.16	.45	.641
P	Grade	2	1.33	.66	1.25	.288
	Gender	1	2.91	2.91	5.48	.020
	Interaction	2	3.06	1.53	2.88	.058

CSCI Subscale Intercorrelations. Inter-subscale correlations were obtained to test the prediction that the Positive Coping and Denial subscales would be positively related, as would be the Anxiety Amplification and Projection subscales. The inter-subscale correlation matrix is presented in Table 9. The Anxiety Amplification and Projection subscales were moderately correlated, as predicted (.41). However, Positive Coping was correlated somewhat more strongly with the Anxiety Amplification than with Denial (.17 vs. .06). A significant negative correlation was evident between Denial and Anxiety Amplification (-.21). The Projection/Anxiety Amplification configuration was highly correlated with the Anxiety Amplification and Projection subscales, as expected, given the nature of selection of subjects into this configuration. Likewise, the Postive Coping subscale and the Postive Coping configuration were correlated.

When designing this instrument, Mellor-Crummey (1989) predicted a high correlation between the Postive Coping and Denial subscales and between the Anxiety Amplification and Projection subscales. Her results showed significant correlations between these subscales; however, the correlation between Postive Coping and Denial was quite low (r= .21). Mellor-Crummey (1989) also found a significant positive correlation (r= .18) between Anxiety Amplification and Positive Coping. This coefficient from Mellor-Crummey's (1989) study is similar to that found in the present study, indicating that the use of these two types of coping strategies may co-exist. Mellor-Crummey (1989) only found a slight negative correlation between Denial and Anxiety Amplification (-.02) compared to the stronger negative correlation found in the present study (-.21).

CSCI Configuration Scores. CSCI configuration scores were computed in a manner similar to that of Mellor-Crummey (1989). Students were divided into two theoretically-derived configuration categories: a) children who predominantly rely on Positive Coping strategies ("Positive Coping configuration") and b) children who endorse either Projection or Anxiety Amplification as their predominant response to situations of social conflict ("Projection/ Anxiety Amplification configuration"). (See the Methods

Table 9
Intercorrelations of CSCI Subscales and Configurations

	Predominant Coping Style				Configuration	
	Positive	Anxiety	Projection	Denial	P/A	PC
Positive	1					
Anxiety	.169	1				
Projection	.014	.411	1			
Denial	.064	-.212	-.144	1		
P/A	-.211	.448	.492	-.119	1	
PC Conf.	.485	-.124	-.175	.092	-.199	1

section for procedures followed to compute the configuration scores). Twenty-nine children (12% of total) were selected for the Positive Coping configuration and fifty-five children (23% of total) were selected for the Projection/Amplification configuration. The remaining 65% of the students were not in these two configurations. In Mellor-Crummey's (1989) sample, 8% were placed in the Postive Coping configuration, 23% were placed in the Projection/Anxiety Amplification configuration.

Self Perception Profile for Children (SPP)

Grade and Gender Differences. Mean scores on the two SPP subscales (Global Self Worth and Social Acceptance), as well as Overall Self Concept, are presented by grade and gender in Table 10. ANOVAs were performed on this scale to ascertain the effects of grade and gender on Social Acceptance, Global Self Worth, and Overall Self Concept. The ANOVA data are summarized in Table 11. No main effects for grade or gender were found for Overall Self Concept or Social Acceptance. For girls, a marginal decrease in the mean level of Global Self Worth was found with increasing grade. Girls responses indicated significantly lower Global Self Worth when compared to boys. This trend was also evident on the other two measures although the findings were slightly less than significant. An interaction effect was also observed on the Global Self Worth subscale indicating that girls in grade four had higher levels of self worth than boys their age; but in grades five and six, their level of self worth was lower than boys their age. The girls appear to follow a trend of decreasing self concept with increasing age more closely than do boys. See Figure 1 for graph of gender by grade interaction effect for Global Self Worth.

Table 10
Mean scores on the SPP by Grade and Gender

	Overall Self Concept	Global Self Worth	Social Acceptance
Grade 4 Girls	3.03	3.31	2.91
Grade 4 Boys	3.00	3.19	2.76
Grade 4	3.02	3.25	2.85
Grade 5 Girls	2.82	2.94	2.68
Grade 5 Boys	2.98	3.28	2.83
Grade 5	2.91	3.14	2.76
Grade 6 Girls	2.77	2.90	2.67
Grade 6 Boys	2.98	3.16	2.89
Grade 6	2.88	3.04	2.79
All Girls	2.89	3.07	2.77
All Boys	2.98	3.22	2.83
Total	2.94	3.15	2.80

Table 11
ANOVA: SPP Measures by Grade and Gender

	Source	Df	Sum Squares	Mean Square	F-value	P-value
Overall Self Concept	Grade	2	.906	.453	2.02	.135
	Gender	1	.796	.796	3.551	.061
	Interaction	2	.590	.295	1.315	.271
Global Self Worth	Grade	2	1.846	.923	2.423	.091
	Gender	1	1.514	1.514	3.974	.047
	Interaction	2	2.505	1.253	3.288	.039
Social Acceptance	Grade	2	.330	.165	.313	.732
	Gender	1	.307	.307	.584	.446
	Interaction	2	1.487	.743	1.411	.246

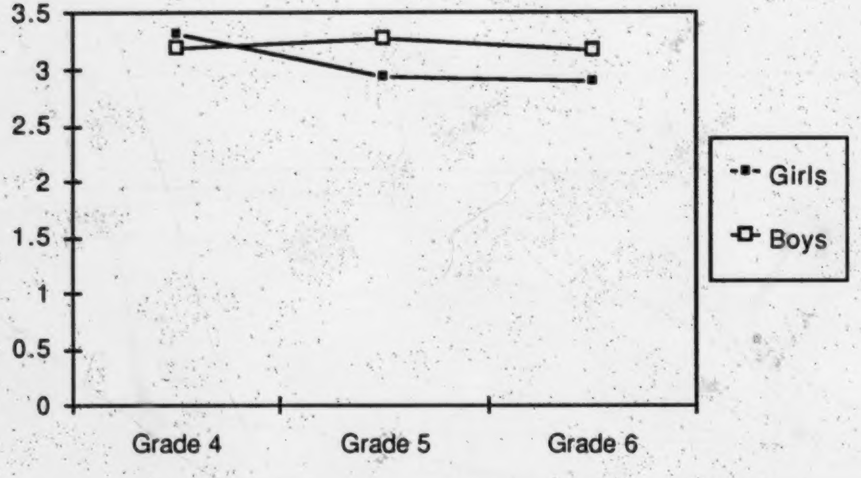

Figure 1
SPP Grade by Gender Interaction Effect
Global Self Worth

Subscale Variation. A comparison was made between the mean level of endorsement for items in each of the SPP subscales: Scholastic Competence, Social Acceptance, Athletic Competence, Physical Appearance, Behavioral Conduct, and General Self Worth (see Table 12). The reponses of the 240 students indicated that their self concept concerning the way they look (i.e. height, weight, body, face, and hair), was lowest when compared to the other domains examined. Global Self Worth items were responded to most positively followed by Scholastic Competence and Behavioral Conduct. Overall, the children's responses indicated similar levels of self concept when compared to other samples identified by the author of the scale (Harter, 1985).

Table 12
Mean Scores on SPP Subscales

SPP Subscales	Mean Score
Global Self Worth	3.15
Scholastic Competence	2.99
Behavioral Conduct	2.99
Athletic Competence	2.94
Social Acceptance	2.80
Physical Appearance	2.76

Self Concept Measures and the CSCI. The students' responses on the CSCI were correlated with the students' responses on the SPP to test the prediction that children who report becoming increasingly anxious when faced with situations of social failure or who blame others for these occurences, would also report lower levels of self concept. The correlation matrix is displayed in Table 13. The correlations reported by Mellor-Crummey (1989) are also included in Table 13. The Scholastic Competence, Athletic Competence, Physical Appearance, and Behavioral Conduct subscales of the SPP were not administered in Mellor-Crummey's (1989) study and so a measure of overall self concept was not obtained. In all three measures (Overall Self Concept, Global Self Worth, and Social Acceptance), there was a significant negative correlation between one's endorsement of Anxiety Amplification and Projection coping strategies and their responses on the corresponding subscale of the SPP. A negative correlation was also evident for children classified in the Projection/Anxiety Amplification configuration. In the present study, Denial was consistently more highly correlated with self concept than was Positive Coping. Correlations between Postive Coping and measures of self concept were somewhat lower than expected. However, Mellor-Crummey (1989) reported a correlation between the Global Self Worth and Positive Coping subscales which was almost identical to that found in the present study. Correlations between Social Acceptance and both the Postive Coping subscale and Positive Coping configuration were lower than that found by Mellor-Crummey (1989).

Table 13

Correlation Matrix: CSCI Subscales and SSP Measures

	Overall Self Concept	Global Self Worth		Social Acceptance	
		Present	MC('89)	Present	MC ('89)
Positive Coping	.044	.080	.10	-.046	.17
Anxiety Amplification	-.399	-.343	-.32	-.356	-.29
Projection	-.311	-.320	-.33	-.203	-.25
Denial	.149	.147	.18	.107	.08
P/A Configuration	-.203	-.254	-.32	-.121	-.29
PC Configuration	.040	.035	.14	.007	.16

Mean levels of Social Acceptance, Global Self Worth, and Overall Self Concept were computed for each of four CSCI coping styles and two coping configurations (see Table 14). ANOVAs were performed and are summarized in Table 15. A post hoc Scheffe multiple comparision test was applied and the results are included in Table 15. The results indicated that children who reported becoming increasingly anxious in response to social failure demonstrated significantly lower mean levels of self concept on all three measures when compared to children whose predominant coping style was Positive Coping or Denial. Children who endorsed Projection as their predominant coping style also had significantly lower levels of Overall Self Concept and Global Self Worth when compared to those endorsing Positive Coping or Denial, based on a Fisher PLSD multiple comparison test. In all cases, children endorsing Anxiety Amplification as their predominant style of coping demonstrated significantly lower levels of self concept than those with more effective coping strategies. Reported levels of Global Self Worth for those in the Positive Coping configuration was significantly higher than those in the Projection/Anxiety Amplification configuration. Mellor-Crummey (1989) did not report ANOVA data for the SPP measures and the CSCI data.

Table 14
SPP Means and Standard Deviations by Predominant Coping Style

	Overall Self Concept		Global Self Worth		Social Acceptance	
Coping Style	Mean	St.dev.	Mean	St.dev.	Mean	St.Dev.
PC	3.02	.45	3.26	.60	2.84	.67
A	2.66	.50	2.80	.67	2.46	.81
P	2.80	.49	2.97	.57	2.63	.80
D	3.07	.41	3.30	.56	3.30	.61
PA Configuration	2.76	.56	2.86	.70	2.64	.83
PC Configuration	2.99	.53	3.21	.64	2.81	.86

Table 15
ANOVA: SPP Subscales by CSCI Coping Styles

	Source	DF	Sum Squares	Mean Squares	F-value	P-value
Overall Self Concept	Btwn groups	3	5.99	1.99	9.68	.0001
	Wthn groups	238	49.07	.21		
Global Self. Worth	Btwn groups	3	9.35	3.12	8.59	.0001
	Wthn groups	238	86.32	.36		
Social Acceptance	Btwn groups	3	10.36	3.45	7.08	.0001
	Wthn groups	238	116.01	.49		

Table 15 (continued)
Significant Contrasts (Scheffe Test):

SPP Subscale	
Overall Self Concept:	Anxiety Amplification vs. Positive Coping Anxiety Amplification vs. Denial
Global Self Worth	Anxiety Amplification vs. Positive Coping Anxiety Amplification vs. Denial PA Configuration vs. PC Configuration
Social Acceptance	Anxiety Amplification vs. Positive Coping Anxiety Amplification vs. Denial

The Children's Concern Inventory (CCI)

Grade and Gender Differences. Mean Peer Anxiety and Overall Anxiety scores for the CCI are presented by grade and gender in Table 16. ANOVAs were performed on the data for this inventory to ascertain the effects of grade and gender on the level of Peer Anxiety and Overall Anxiety. The ANOVA data are summarized in Table 17. No main effect for grade was found for either subscale. A main effect for gender was found for both Peer Anxiety and Overall Anxiety. Girls in all three grades reported significantly higher levels of Overall Anxiety when compared to boys. Girls' responses on the six Peer Anxiety items demonstrated even more disparity between the mean scores of boys and the mean scores of girls. Buhrmester (1985) also found girls in grades five and six to have higher levels of anxiety on all four CCI subscales (an inconsistent pattern of responses was found for children in grade four.)

Subscale and Item Variation. A comparison was made between the mean level of endorsement for items in each of the CCI subscales: Academic Performance, Peer Anxiety, Sports Competitions, and School Conduct (see Table 18). The reponses of the 240 students indicated that they worry most about their school conduct, followed by their academic performance, social acceptance, and lastly physical activities. Girls and Boys did not differ in the rank placement of these concern domains. Means reported in the CCI Manual (Buhrmester, 1985), based on 100 children in each of grades four, five, and six, were similar to those found in the present study. The only differences between the two samples were slightly lower scores on the Sports Competitions subscale and slightly higher scores on Peer Anxiety subscale for the present sample.

The item which was endorsed most highly was "how worried are you about getting in trouble at school and having the teacher tell your parents about it." Sixty-seven percent of the children responded that they were either very worried (42%) or somewhat worried (25%). Thirty-three percent reported that they were not too worried or not at all worried. The largest discrepancy between endorsement of items by boys and girls was the item, "When a friend gets mad at you how nervous do you get that they might not want to be your friend anymore?" Girls responded with a mean endorsement of 2.86 out of four; boys with a mean endorsement of 2.18 out of four (F(1,2)= 32.95, p<.0001).

Table 16
Mean Scores on the CCI by Grade and Gender

	Peer Anxiety	Overall Anxiety
Grade 4 Girls	2.20	2.43
Grade 4 Boys	1.94	2.02
Grade 4	2.09	2.25
Grade 5 Girls	2.45	2.53
Grade 5 Boys	1.97	2.27
Grade 5	2.17	2.38
Grade 6 Girls	2.47	2.47
Grade 6 Boys	1.87	1.98
Grade 6	2.14	2.20
All Girls	2.36	2.47
All Boys	1.94	2.11
Total	2.13	2.28

Table 17
ANOVA: CCI Measures by Grade and Gender

	Source	DF	Sum Squares	Mean Squares	F-value	P-value
Peer Anxiety	Gender	1	11.55	11.55	28.08	.0001
	Grade	2	.86	.43	1.04	.36
	Interaction	2	1.17	.59	1.42	.24
CCI Total	Gender	1	8.73	8.73	21.70	.0001
	Grade	2	1.67	.83	2.07	.13
	Interaction	2	.48	.24	.60	.55

Table 18
Mean Scores on the CCI Subscales

SPP Subscales	Mean Score
School Conduct	2.58
Academic Performance	2.35
Peer Anxiety	2.13
Sports Competitions	2.01

Anxiety Measures and the CSCI. The students' responses on the CSCI were correlated with their responses on the CCI to test the prediction that children who report becoming increasingly anxious when faced with situations of social failure (i.e., students with high scores on the Anxiety Amplification subscale) would also report being generally anxious in a variety of social situations. Lower correlations were predicted between the other three CSCI subscales and the anxiety measures. Table 19 summarizes the findings of the present study and those of Mellor-Crummey (1989) (Peer Anxiety subscale only). The results of the present study supported the prediction in that scores on the Anxiety Amplification subscale of the CSCI were moderately correlated with Overall Anxiety and more highly correlated with Peer Anxiety items. Projection correlated more highly with Peer Anxiety than did the two effective coping strategies, suggesting that blaming others for negative peer interactions may contribute to higher levels of anxiety with peers. A slight negative correlation was found between Denial and Peer Anxiety in both studies. Mellor-Crummey (1989) reported significant correlations between Peer Anxiety and scores on the Postive Coping, Anxiety Amplification, and Denial subscales. The low correlation between the Positive Coping subscale and Overall Anxiety in the present study may suggest that a student's reported use of positive coping strategies may have a minimal influence on their level of anxiety.

Table 19

Correlation Matrix: CSCI Subscales and CCI Measures

	Peer Anxiety		CCI Overall Score
	Present	MC ('89)	
Positive Coping	.11	.21	.14
Anxiety Amplification	.62	.55	.51
Projection	.22	.21	.17
Denial	-.19	-.12	-.21
P/A Configuration	.25	.20	.22
PC Configuration	-.06	.02	.03

Means and standard deviations for the Peer Anxiety and Overall Anxiety subscales are presented by predominant coping style and coping configurations in Table 20. ANOVAs were performed to ascertain the effects of coping styles on the level of Peer Anxiety and Overall Anxiety. ANOVA data and post hoc Scheffe multiple comparison tests are summarized in Table 21. Students whose responses indicated that Denial was their predominant coping strategy obtained the lowest levels of Peer Anxiety and Overall Anxiety. Children who reported becoming increasingly anxious in response to social failure demonstrated significantly higher mean levels of Peer Anxiety and Overall Anxiety compared to the children in the other three coping styles. Children using predominantly Positive Coping strategies to cope with social conflict demonstrated significantly higher levels of Overall Anxiety compared to those using predominantly Denial strategies. Those in the Postive Coping configuration indicated significantly lower levels of Overall Anxiety than those in the Projection/Anxiety Amplification configuration.

Table 20
CCI Means and Standard Deviations by Predominant Coping Style

	Peer Anxiety		CCI Total	
Coping Style	Mean	St.dev.	Mean	St.dev.
PC	2.07	.58	2.31	.62
A	2.68	.62	2.77	.68
P	2.22	.80	2.23	.65
D	1.82	.56	1.94	.48
P/A Configuration	2.44	.78	2.55	.81
PC Configuration	2.03	.54	2.34	.53

Table 21
ANOVA: CCI Measures by CSCI Coping Styles

	Source	DF	Sum Squares	Mean Squares	F-value	P Value
Peer Anxiety	Btwn groups	3	21.64	7.21	19.46	.0001
	Wthn groups	238	88.20	.37		
CCI Total	Btwn groups	3	20.09	6.70	18.73	.0001
	Wthn groups	238	85.07	.36		

Significant Contrasts (Scheffe Test):

SPP Subscale	
Peer Anxiety	Anxiety Amplification vs. Positive Coping Anxiety Amplification vs. Denial Anxiety Amplification vs. Projection Denial vs. Projection
CCI Total	Anxiety Amplification vs. Positive Coping Anxiety Amplification vs. Denial Anxiety Amplification vs. Projection Positive Coping vs. Denial PA configuration vs. PC configuration

Peer Relatedness Scale

Factor Analysis of the Peer Relatedness Scale. In order to assess the internal structure of the Peer Relatedness Scale, a principal components factor analyses with oblique rotation was performed on the 14 items (see Appendix K). Previous analysis by Mellor-Crummey (1989) indicated a two factor structure conforming to the two theoretically derived subscales of this instrument. In the current analysis, where only roots greater than one were used, a three factor solution resulted with three of the items from the Emotional Security subscale loading more highly on the third factor than on the second factor which was shared by the other four items from the Emotional Security subscale. Each of the five items of the Desire for Psychological Proximity subscale loaded on factor one as predicted, with all factor loadings greater than 0.68.

Grade and Gender Differences. Mean scores for the Peer Relatedness subscales and item #10, "I wish I had more friends", are grouped by grade and gender and are summarized in Table 22. ANOVAs were performed on these measures to ascertain the effects of grade and gender on peer relatedness (see Table 23). No main effects for gender or grade were found for the eight Emotional Security items, although gender effects approached significant levels with girls indicating stronger feelings of Emotional Security than boys. A main effect for gender was evident on items designed to reflect one's Desire for Psychological Proximity with peers. The responses of girls in all three grades indicated that they desire more emotional closeness with their peers when compared to boys their age. Also, girls' endorsement of item #10 was significantly higher than that of boys. A main effect for grade was also evident for item #10. Children in grades four and six rated this item significantly lower than did children in grade five. Grade-by-gender effects on the Peer Relatedness Scale were not reported by Mellor-Crummey (1989).

Table 22
Scores on the Peer Relatedness Scale by Grade and Gender

	Emotional Security	Desire for Proximity	Item # 10
Grade 4 Girls	3.60	2.55	2.90
Grade 4 Boys	3.41	2.26	2.20
Grade 4	3.52	2.42	2.59
Grade 5 Girls	3.49	2.71	2.96
Grade 5 Boys	3.46	2.51	2.96
Grade 5	3.47	2.59	2.96
Grade 6 Girls	3.59	2.53	2.61
Grade 6 Boys	3.47	2.14	2.24
Grade 6	3.52	2.32	2.41
All Girls	3.56	2.60	2.84
All Boys	3.45	2.33	2.53
Total	3.50	2.46	2.68

Table 23
ANOVA: Peer Relatedness Scale Scores by Grade and Gender

	Source	DF	Sum Squares	Mean Squares	F-value	P-value
Emotional Security	Gender	1	.749	.749	3.510	.062
	Grade	2	.120	.060	.281	.756
	Interaction	2	.265	.132	.620	.539
Desire for Proximity	Gender	1	5.170	5.170	6.970	.009
	Grade	2	3.300	1.650	2.220	.111
	Interaction	2	.314	.157	.212	.809
Item # 10	Gender	1	7.800	7.800	6.900	.009
	Grade	2	12.830	6.420	5.680	.004
	Interaction	2	5.200	2.600	2.300	.102

Peer Relatedness Scale and the CSCI. The students' responses on the CSCI were correlated with their responses on the Peer Relatedness Scale to test the prediction that children who report becoming increasingly anxious when faced with situations of social failure or who blame others for these occurences would also report less Emotional Security with their peers and a stronger Desire for Psychological Proximity with them. The resulting correlations supported these predictions in that negative correlations were evident between endorsement of Anxiety Amplification and Projection subscales and reported Emotional Security with peers (see Table 24). Mellor-Crummey (1989) found similar correlations, and suggested that children who feel less emotionally secure around their peers tend to deal with socially stressful situation in more defensive, anxious ways. A moderately high correlation was found between endorsement of Anxiety Amplification items and a Desire for Psychological Proximity with peers. Mellor-Crummey (1989) reported a similar correlation, and suggested that children who become increasingly anxious in situations of social conflict also feel that they are not as emotionally close to their social partners as they would like to be. In both studies, the correlations between the endorsment of Projection items and the Desire for Psychological Proximity items were significant. The correlations between these two peer relatedness measures and the Positive Coping and Denial subscales were below 0.20. According to the present study, Emotional Security with peers appears to be most postively correlated with the use of Denial coping strategies and negativley correlated with a Desire for Psychological Proximity with peers. This type of pattern, high Emotional Security and lower Desire for Psychological Proximity , is characterized by children in the Optimum Relatedness category.

Table 24

Correlation Matrix: CSCI Scores and Peer Relatedness Scale Subscales

	Emotional Security		Desire for Proximity	
	Present	MC ('89)	Present	MC ('89)
Positive Coping	.01	.16	.19	.14
Anxiety Amplification	-.31	-.33	.47	.47
Projection	-.51	-.39	.28	.44
Denial	.20	.11	-.10	.05
P/A Configuration	-.26	-.28	.19	.34
PC Configuration	.11	.17	.05	-.05

Mean scores on each Peer Relatedness subscale were grouped into coping styles and coping configurations and are summarized in Table 25. ANOVA's were performed on the Peer Relatedness Scale to ascertain the effects of predominant coping style and coping configurations on Emotional Security and Desire for Psychological Proximity (see Table 25). The mean responses on Emotional Security items for children classified as endorsing Anxiety Amplification as their predominant coping style were significantly lower than those endorsing Denial strategies, but not significantly lower than those using Positive Coping strategies. However, the Emotional Security of children who tend to blame others for social failures was found to be significantly lower than any of the other three types of coping styles. Children endorsing Denial as their predominant coping style demonstrated the highest level of Emotional Security with peers, although not significantly higher than those endorsing Positive Coping. Those children scoring highest on the Denial subscale indicated the least amount of concern regarding increasing their psychological proximity with peers. Children who predominantly used Anxiety Amplification as a coping style reported a significantly higher Desire for Psychological Proximity scores than children who cope in a more positive manner when faced with social failure. A comparision of configuration scores indicates that although those in the Positive Coping configuration have significantly higher levels of Emotional Security than those in the Projection/Anxiety

Table 25
Peer Relatedness Scale Means and Standard Deviations by Predominant Coping Style

	Emotional Security		Desire for Proximity	
	Mean	St.dev.	Mean	St.dev.
Positive Coping	3.54	.40	2.44	.82
Anxiety Amplification	3.39	.54	2.92	.85
Projection	3.08	.62	2.75	.81
Denial	3.69	.26	2.06	.79
P/A Configuration	3.28	.54	2.75	.87
PC Configuration	3.63	.35	2.58	.84

Amplification configuration, their desire for increased closeness with peers is not significantly different. Mellor-Crummey did not report ANOVA data on coping styles and the two subscales of the Peer Relatedness Scale, but instead went on to examine the children's responses according to the Relatedness categories.

Table 26
ANOVA: Peer Relatedness Scale by Predominant Coping Style

	Source	DF	Sum Squares	Mean Squares	F-value	P-value
Emotional Security	Btwn groups	3	8.08	2.69	14.75	.0001
	Wthn groups	238	43.44	.18		
Desire for Proximity	Btwn groups	3	8.08	2.69	14.75	.0001
	Wthn groups	238	43.44	.18		

Significant Contrasts (Scheffe Test):

SPP Subscale	
Emotional Security	Anxiety Amplification vs. Denial Anxiety Amplification vs. Projection Positive Coping vs. Projection Denial vs. Projection
Desire for Proximity	Anxiety Amplification vs. Positive Coping Anxiety Amplification vs. Denial Positive Coping vs. Denial Denial vs. Projection

Relatedness Categories. The subjects were categorized into three groups (Optimally Related, Deprived, and Detached) in a manner similar to that used by Mellor-Crummey (1989). (See Methods section for greater detail as to how these categories were created). The percentage of participants categorized into each of these three groups was similar to that of Mellor-Crummey (1989) (see Table 27). ANOVAs were performed to ascertain the effects of one's Relatedness category on the CSCI subscale scores (see Appendix L). A one factor ANOVA, comparing those students in the Optimally Related category with those not in the Optimally Related category, indicated that students who were classified as having Optimum relations with peers significantly less often endorsed Projection as a coping strategy when compared to those not classified as Optimumly Related. Students in the Optimally Related category were also significantly more often selected for placement in the Positive Coping configuration. Mellor-Crummey's (1989) finding that students in the Optimum Relatedness category would endorse Positive Coping more highly than other students, was not supported. Students classified as having Detached relations with their peers had significantly higher Projection scores as compared to those students not categorized as Detached. Again, the prediction that detached students would demonstrate higher levels of Denial was not supported (although the F-value approached significance). Students classified as having Deprived relations with their peers were not significantly different on their responses to CSCI compared to children not classified as Deprived.

Table 27
Comparison of Relatedness Category Groups

	Present Study		Mellor-Crummey (1989)	
	Frequency	Percentage	Frequency	Percentage
Optimum	28	13%	81	16%
Deprived	20	8%	49	10%
Detached	28	13%	84	17%
Total N	242		490	

Sociometric Measures

Participants were categorized into the following three popularity groups: low (0 to 2 nominations), medium (3 to 7 nominations), and high (8 nominations or more), based on the number of peer nominations received from classmates. When this three tiered sociometric status was assigned relative to one's nominations by their classmates, the proportions of the intervals varied slightly. Approximately 25% of the students were in the low group and 25% were in the high group. The other 50% of the students were placed in the medium popularity group. Popularity groups were calculated based on the nominations for the fun and graded project combined (correlation between these two measures was .80). A two factor ANOVA was performed to ascertain the effects of grade and gender on sociometric status. No significant differences were found (See Appendix M). One factor ANOVA's were performed on the sociometric groups to ascertain the effects of sociometric status on CSCI subscale scores (assignment to sociometric group based on each class seperately) (see Appendix N). Results indicated that children in the low popularity group had significantly higher scores on the Projection subscale of the CSCI. No significant differences were evident for the other three coping subscales. Although Mellor-Crummey (1989) used a different measure of popularity than was used in the present study, she found that children classified as popular (frequently nominated for "peer partner" and seldom nominated as "least liked peer") had significantly higher levels of Positive Coping and lower levels of Projection.

A Chi-square analysis was performed to compare the sociometric status of children with each coping style based on nominations for graded and fun projects. Based on her sample of 125 children, Mellor-Crummey (1989) reported that children whose responses on the CSCI indicated predominant use of Positive Coping or Denial were associated with more frequent peer nominations for fun activities but not for graded activities. Children whose responses indicated a high endorsement of Projection or Anxiety Amplification coping strategies were less likely to be nominated as a partner for the graded activity but not for a fun activity. The present study found no significant differences between fun and graded nominations ($x^2 = 8.47$; df=11; $p > .671$)

Children who selected each other as partners were examined further to ascertain whether or not these pairs shared the same coping style. Although Mellor-Crummey (1989) used a slightly different procedure of peer nomination and analyses, she reported that children with Positive Coping styles were more likely to nominate other children with

Positive Coping styles, and children with Projection as predominant coping style were more likely to nominate other children with Projection as a predominant coping style. After peer nominations were adjusted for unequal group size, results of the present study partially supported the previous study. Children whose responses indicated predominant use of Projection strategies nominated other children with Projection coping styles approximately three times as often than children with one of the other three coping styles. Children using predominantly Denial strategies were nearly twice as likely to nominate children whose predominant coping style was either Denial or Positive Coping, than to nominate children with one of the two ineffective coping styles. However, children with high endorsement of Postive Coping did not select other children with the same coping style more often.

Relationships Among Questionnaires. The students' sociometric status was examined further by correlating the children's sociometric status with their score on measures of self concept, anxiety, and peer relatedness. The intercorrelation matrix is presented in Table 28. The results indicate that higher levels of sociometric status are moderately correlated with self concept and feelings of competence with peers, and negatively correlated with Overall Anxiety and anxiety experienced during peer interactions. Children with lower levels of sociometric status may also experience less satisfaction with the closeness they have with their peers and may not experience the same degree of Emotional Security with peers.

The correlations on Table 28 also suggest that the three measures of self concept are positively correlated with Emotional Security with peers. Correlations involving Global Self Worth may have been underestimated due to the predominantly high scores most children received on this subscale. Also, as anxiety level increased, especially when interacting with peers, the level of self concept decreased. Likewise, a moderate negative correlation was evident between Peer Anxiety and Emotional Security with peers. Emotional Security was also negatively correlated with responses on the Desire for

Emotional Proximity subscale. Self concept was also found to be negatively correlated to one's desire for increased emotional proximity with peers. These findings suggest that it is often the children who are less secure about themselves and their relationship with their peers who have a strong desire to become closer to their peers. Children whose reponses indicated that they were unhappy with their level of closeness with peers were more likely to demonstrate higher levels of anxiety, especially in situation involving their peers.

Table 28
Intercorrelation Matrix: Questionnaires

	SC	SW	PA	SA	CCI	ES	DfP
Self Concept	1						
Self Worth	.805	1					
Peer Acceptance	.743	.456	1				
Social Anxiety	-.479	-.383	-.474	1			
CCI Total	-.385	-.272	-.322	.739	1		
Emotional Sec.	.427	.353	.446	-.336	-.233	1	
Desire for Prox.	-.407	-.23	-.538	.463	.371	-.454	1
Popularity	.297	.158	.325	-.283	-.223	.143	-.274

Means scores on the SSP, CCI, and Peer Relatedness Scale are presented by sociometric group in Table 29. ANOVA's were performed to ascertain the effects of sociometric status on self esteem, anxiety levels, and peer relatedness and the results are summarized in Table 30. The results indicated that children with low sociometric status had significantly lower Overall Self Concept and Peer Acceptance, when compared to children with medium or high sociometric status. Although Global Self worth scores were consistently higher than the other measures of self concept, low sociometric status children had significantly lower Global Self Worth scores than did high sociometric children. Children with high sociometric status demonstrated significantly higher Peer Acceptance and Overall Self Concept when compared to those with medium sociometric status.

Responses on the CCI indicated that students with low sociometric status demonstrated significantly higher levels of Peer Anxiety and Overall Anxiety than those students with medium or high sociometric status. Children in the medium and high sociometric groups were not significantly different. There was no significant difference in level of Emotional Security between the sociometric groups. However, a significant difference did emerge when the assignment of sociometric status was based on the total sample (F (2,230)= 3.73, p<.025). Children with low sociometric status demonstrated significantly higher levels of desire for emotional proximity with peers than did children with medium or high sociometric status.

Table 29
Questionnaire Means by Sociometric Status

Subscale	Sociometric Group		
	Low	Medium	High
Overall Self Concept	2.73	2.93	3.15
Global Self Worth	3.02	3.13	3.30
Peer Acceptance	2.43	2.82	3.10
Social Anxiety	2.46	2.09	1.91
CCI Total	2.56	2.23	2.14
Emotional Security	3.41	3.49	3.60
Desire for Proximity	2.85	2.42	2.17

Table 30
ANOVA: Questionnaire Means by Sociometric Status

	Source	DF	Sum Squares	Mean Squares	F-value	P-value
Overall Self Concept	Btwn groups	2	5.07	2.54	12.04	.0001
	Wthn groups	235	49.51	.21		
Global Self Worth	Btwn groups	2	2.42	1.21	3.10	.047
	Wthn groups	239	93.25	.39		
Peer Acceptance	Btwn groups	2	13.48	6.74	14.27	.0001
	Wthn groups	239	112.88	.47		
Social Anxiety	Btwn groups	2	9.33	4.66	11.09	.0001
	Wthn groups	239	100.51	.42		
CCI Total	Btwn groups	2	6.07	3.04	7.32	.0008
	Wthn groups	239	99.09	.42		
Emotional Security	Btwn groups	2	1.06	.53	2.50	.0841
	Wthn groups	239	50.46	.21		
Desire for Proximity	Btwn groups	2	14.30	7.15	10.11	.0001
	Wthn groups	239	169.07	.71		

Significant Contrasts (Scheffe Test):

Subscales	
Overall Self Concept	Low vs. Medium Low vs. High Medium vs. High
Global Self Worth	Low vs. High
Peer Acceptance	Low vs. Medium Low vs. High Medium vs. High
Social Anxiety	Low vs. Medium Low vs. High
CCI Total	Low vs. Medium Low vs. High
Desire for Proximity	Low vs. Medium Low vs. High

In summary, the structural validity of the Anxiety Amplification and Projection subscales were supported by the factor analysis procedures which were used. These subscales appear to measure two distinct coping strategies that are used commonly by children in grades four, five, and six. The correlation between the two subscales indicates that use of one ineffective coping strategy is moderately related to the use of the other type of ineffective coping strategy. Factor analyses provided less support for the Positive Coping and Denial subscales, although five items from each scale loaded highly on their corresponding factor. The loading of the other four items onto factors five and six may suggest that other types of effective coping strategies exist and are not adequately accounted for by Mellor-Crummey's (1989) four theoretically derived subscales.

The four CSCI subscales were found to be differentially related to other self-system processes, as predicted. Projection was found to be related to: a) lower levels of overall Self Concept and Global Self Worth when compared to those endorsing Positive Coping or Denial coping styles; b) higher Peer Anxiety and Overall Anxiety when compared to those endorsing Denial as their predominant coping style; c) lower levels of Emotional Security with peers when compared to those endorsing the three other coping styles; d) stronger Desire for Psychological Proximity with peers when compared to those endorsing Denial as their predominant coping style; and e) higher likelihood of being assigned to a low sociometric group based on peer nominations.

Anxiety Amplification was found to be related to: a) lower levels of Overall Self Concept, Social Acceptance, and Global Self Worth when compared to those endorsing Positive Coping or Denial coping styles; b) higher Peer Anxiety and Overall Anxiety when compared to children with the other three coping styles; c) lower levels of Emotional Security with peers when compared to those endorsing Denial as their predominant coping style; and d) stronger Desire for Psychological Proximity with peers when compared to those endorsing Denial or Postive Coping as their predominant coping style.

Denial was found to be related to: a) higher levels of Overall Self Concept, Social Acceptance, and Global Self Worth when compared to those endorsing Anxiety Amplification as their predominant coping style; b) lower Peer Anxiety and Overall Anxiety when compared to those endorsing Anxiety Amplification or Projection most highly; c) higher levels of Emotional Security with peers when compared to those endorsing the other three coping styles; and d) weaker desires for increased emotional proximity with peers when compared to those endorsing the other three coping styles.

Finally, Positive Coping was found to be related to: a) higher levels of Overall Self Concept, Global Self Worth, and Social Acceptance when compared to those endorsing Anxiety Amplification as their predominant coping style; b) lower Peer Anxiety and Overall Anxiety when compared to those endorsing Anxiety Amplification as their predominant coping style; c) higher levels of Emotional Security with peers when compared to those endorsing Projection as their predominant coping style; and d) weaker desires for increased emotional proximity with peers when compared to those endorsing Anxiety Amplification as their predominant coping style.

Significant correlations were also found between measures of self concept, peer and overall anxiety, peer relatedness, and popularity. Children with higher levels of self concept appear to experience less anxiety with their peers and are more satisfied with their level of Emotional Security with them. Also, these children are frequently more popular and experience less Overall Anxiety compared to children with low levels of self concept.

CHAPTER SIX

DISCUSSION

Summary of Results

The central goal of the present study was to examine the structural validity of the CSCI and to identify how responses on this questionnaire relate to levels of self concept, Peer Anxiety and Overall Anxiety, Peer Relatedness, and popularity. The factor analysis procedures which were used strongly supported the construct validity of the Anxiety Amplification and Projection subscales, but the factor structure of the Positive Coping and Denial subscales were less clearly defined. Significant differences in self concept, anxiety levels and Peer Relatedness were evident between those using effective coping strategies (Positive Coping and Denial) and those using less effective strategies (Anxiety Amplification and Projection). In addition, a number of predicted and unpredicted relationships were observed among the various questionnaires used in this study. Results obtained suggest that the CSCI is a useful instrument in identifying children using ineffective coping strategies and that many of these students share common levels of self concept, anxiety, and Peer Relatedness. Each of these sets of findings will now be discussed.

The Children's Social Coping Inventory

Structure of the CSCI. The reliability, content validity, and concurrent validity of the CSCI were examined in a previous study and were found to be satisfactory (Mellor-Crummey, 1989). The present study tested the assumption that children's coping strategies in negative peer interactions can be categorized into four distinct types of strategies used most commonly by children. These theoretically derived subscales were supported by factor analyses in previous studies by the author (Mellor-Crummey) of the scale.

In the present study, results of the factor analysis indicated that two subscales, Anxiety Amplification and Projection, assess two distinct types of ineffective coping strategies. The seven items in the Anxiety Amplification subscale loaded highly on Factor 1. Mellor-Crummey (1989) designed this subscale as a measure of the extent to which children focus on the negative emotions surrounding peer interactions without attempting to change the situation (Mellor-Crummey, 1989). For example, this subscale includes the item, "When my friends leave me out I worry that they don't like me." This is an ineffective coping style because it often enhances one's level of anxiety. Of the students completing the questionnaires, 20% endorsed items on the Anxiety Amplification subscale more highly than the other three coping dimensions. This figure suggests that Anxiety Amplification constitutes a significant, unique type of coping response.

The seven items in the Projection subscale loaded highly on Factor 2. Mellor-Crummey (1989) designed this subscale as a measure of the extent to which children attempt to blame or project anger onto others as a response to negative social outcomes. For example, this subscale includes the item, "When my friends leave me out I tell myself they are stupid for not asking me." Overall, 11% of the students endorsed items on the Projection subscale more highly than the other three coping dimensions. Responses indicated that the students use this coping dimension least often when compared to Anxiety Amplification, Positive Coping, and Denial.

Results of the factor analyses on the Positive Coping and Denial subscales indicated that these two coping dimensions are somewhat less clearly defined than the Anxiety Amplification and Projection subscales. Five items from each subscale loaded highly onto their corresponding factor, as predicted. These items appear to reflect two different types of coping responses, both of which are considered to be effective coping styles (Mellor-Crummey, 1989). The Positive Coping dimension was designed to measure the students' attempts to address the situation with problem-focussed approaches, such as negotiation, compromise, or trying to determine what the other child's point of view is (Mellor-Crummey, 1989). For example, this subscale included the item, "When my friends leave me out I try to find out why they left me out." Overall, this coping dimension was endorsed most highly and 40% of the students endorsed items on the Positive Coping subscale more highly than the other three coping dimensions.

Five of the seven items on the Denial subscale loaded highly on factor 3. The denial subscale was designed to reflect children's efforts to devalue or decrease the importance of the negative peer interaction. The items on this subscale focussed on intentional efforts to decrease the importance of an event, as opposed to simply not finding the event important (Mellor-Crummey, 1989). The five items loading highly on the Postive Coping subscale likely reflect use of these types of coping strategies. For example, this subscale included the item, "When my friends leave me out I tell myself it doesn't matter." Overall, 30% of the students endorsed items on the Denial subscale more highly than the other three coping dimensions. Results of the present study confirm Mellor-Crummey's (1989) suggestion that Denial may be considered an effective coping style. The frequent use of Denial strategies to cope with negative peer interactions may even relate to higher levels of Emotional Security with oneself and peers, when compared to frequent use of the strategies included in the Positive Coping subscale.

Although factor analyses demonstrated partial support for the distinctness of the Positive Coping and Denial subscales, several items did not load on their corresponding factor as outlined by Mellor-Crummey (1989). This result suggests that each of these subscales may reflect more than one coping dimension. One item, "When my friends leave me out I try to get them to include me," did not load positively on any factor. The lack of support for the predicted factor solution for the Postive Coping and Denial subscales suggests that Positive Coping strategies may be quite varied and children's endorsement of different types of Positive Coping strategies vary in degree and context. Positive Coping appears to be the most flexible coping dimension and has been the most difficult coping strategy to describe concisely in the past (Mellor-Crummey, 1989). Results of this study indicate that these two subscales require closer examination and revision to increase the structural validity of the CSCI.

Correlations among Coping Styles. Correlations among coping subscales partially supported the predictions by Mellor-Crummey (1989). It was predicted that scores on the Anxiety Amplification and Projection subscales would be highly related because both represent ineffective coping strategies. Analyses, in the present study, demonstrated a moderate positive correlation between the students' scores on these two coping subscales. Projection responses, such as blaming others for undesirable social outcomes, were moderately correlated with increased feelings of anxiety in negative peer interactions. This finding supports the research of Mellor-Crummey (1989) who stated that "children who become anxious in the face of social conflict may turn to blaming other children for social failures, rather than taking the responsiblity for social conflict and attempting to resolve these situations themselves" (p. 457).

It was also predicted that Denial and Positive Coping would be highly related because both are effective coping strategies. Minimal support was evident for this prediction in the present study. Low correlations were found between the Positive Coping subscale and the other three subscales indicating that use of Postive Coping strategies may not be associated with consistent use of other types of coping strategies. However, Positive Coping correlated most highly with the Anxiety Amplification subscale. Mellor-Crummey (1989) found a similar correlation between these two subscales and concluded that the initial surge of anxiety experienced in a difficult social situation may be followed by attempts to resolve the situation. Scores on the Anxiety Amplification and Denial subscale were slightly negatively correlated, suggesting that children who counter the anxiety by consciously denying the importance of the negative peer interaction may also repress impulses to focus on the negative emotions surrounding the situation. It is unclear why children using Positive Coping do not use this same respression strategy. Possibly, in order to take the action required by the strategies included in the Postive Coping subscale, the children must acknowledge the seriousness of the negative peer interation. Denial strategies, however, involve minimizing the importance of an event which is one dimension of repression.

CSCI Coping Configurations. The children were classified into coping configurations in an attempt to closely examine those children who were more selective in their use of coping strategies. Each child's predominant coping style simply reflected the subscale that they endorsed the most highly. This measure of coping style did not take into account how highly the other coping styles were endorsed. The Projection/Anxiety Amplification configuration included only those children whose responses indicated that they frequently used Projection or Anxiety Amplification as coping styles and less often used Positive Coping. The Positive Coping configuration included only those children whose responses indicated that they frequently used Positive Coping and less often used Projection and Anxiety Amplification. Theoretically, these configurations captivate the two extreme groups; children who almost always use effective coping styles (Positive Coping predominantly) and children who seldom use effective coping styles. Significant differences in the children's responses to the various questionnaires should have been most clearly depicted when comparing these two groups. However, this result was not found in the present study. In some cases, the ANOVA data based on configurations was consistent with the ANOVA data based on predominant coping style. More often though, significant differences were not evident when comparing the two configurations.

This finding may be due partially to the method in which children were assigned to the configurations. Criteria for assignment to the Projection/Anxiety Amplification configuration should have been more stringent. Specifically, endorsement of Positive Coping strategies should have been at least one standard deviation below endorsement of Projection and Anxiety Amplification to qualify for assignment to the Projection/Anxiety Amplification configuration. To qualify for assignment to the Positive Coping configuration, children should have had Projection and Anxiety Amplification subscale scores at least one standard deviation below their level of endorsement of Postive Coping.

In addition, high scores on the Denial subscale should have been considered when determining candidates for the Positive Coping configuration. Results of the present study suggest that this coping strategy is as effective, if not more effective, than the strategies captured by the Positive Coping subscale. If changes such as this had been incorporated into the CSCI configuration assignment procedure, the results may have been more consistent with the overall findings of the present study.

Grade and Gender Differences. No main effect for grade was observed in the endorsement of coping subscales by children in grades four, five, and six. Mellor-Crummey (1989) reported a main effect for grade. In her sample of students, Mellor-Crummey (1989) found that use of the Positive Coping and Denial strategies decreased with increasing age. This could have been due to the fact that she included grade three students in her sample and therefore had a wider age range with which to observe developmental changes. For postive coping, results of the present study reveal a trend similar to that of Mellor-Crummey (1989), although the level of significance used was greater than .05.

The average response of the girls who completed the questionnaire indicated a significantly higher endorsement of Postive Coping and Anxiety Amplification strategies when compared to that of boys. Of the children endorsing Anxiety Amplification as a predominant coping style, 80% were girls. This suggests that girls may feel more distressed when faced with a conflict with their peers, but also take active steps to resolve social conflicts. Results from other measures in this study support this proposition. Girls demonstrated higher Peer Anxiety on the CCI and a stronger desire for closer psychological proximity with their peers on the Relatedness Scale. Girls appear to be more concerned with peer relationships and may be willing to behave in ways that will help to resolve conflicts more effectively.

Boys demonstrated significantly higher levels of projection than girls. Of the children endorsing Projection as a predominant coping style, 85% were boys. This suggests that in a situation of negative peer interactions, boys were more likely to blame others for the situation. This finding is consistent with the findings of Mellor-Crummey (1989) who proposed that it may be less socially acceptable for girls to blame others, although boys often do so. She also suggested that it may be less socially acceptable for boys to admit being anxious than it is for girls. Responses on the CCI supported this position in that girls reported higher levels of anxiety than did boys in all areas measured on the inventory.

Coping Style and Feelings Towards Self and Peers.

The children's responses on the CSCI were predicted to be related to their self concept, anxiety level, and peer relations. Specifically, frequent use of ineffective coping strategies were predicted to be related to lower self concept, higher Peer Anxiety and Overall Anxiety, less secure relationships with peers, and lower levels of sociometric status.

Self Concept. Results of the present study demonstrated that children who indicated that they frequently respond to negative peer interaction by focussing on the negative emotions associated with the situation tend to feel less socially accepted and have lower Global Self Worth and Overall Self Concept. Children who tend to react in an anxious way to social conflict may have tried other coping strategies in the past, but have developed a panic-type reaction which may have occurred as a result of previous upsetting experiences. Honig (1986) discussed how these feelings of helplessness have been found to be related to low self esteem. It appears that students who use ineffective coping strategies experience fewer positive feelings about themselves and believe that they have lower levels of social acceptance than do other children. It is unclear from a correlational study whether low self esteem children are more prone to developing ineffective coping strategies, if these types of coping responses contribute to lower self concept, or if some third factor contributes to the manifestation of both characteristics. It is likely an interaction of these and other factors.

Children scoring high on the Denial or Positive Coping subscales reported having a significantly higher Overall Self Concept and Global Self Worth when compared to those scoring high on Anxiety Amplification and, to a lesser extent, Projection. The levels of Social Acceptance for those endorsing Positive Coping were somewhat lower but still significantly higher than children using predominantly Anxiety Amplification strategies. Children whose responses indicate that they take constructive steps to reduce the anxiety which is caused by negative peer interactions appear to have a stronger sense of self concept.

Peer Anxiety and Overall Anxiety. Children whose responses indicated frequent use of Anxiety Amplification strategies in negative peer interactions experienced significantly more Peer Anxiety and Overall Anxiety than children using the other three coping strategies. However, due to the high percentage of girls in the Anxiety Amplification coping style, and the finding that girls demonstrated significantly higher levels of Peer Anxiety and Overall Anxiety than did boys, the differences observed between coping styles may be inflated. The relative contributions of gender and coping style to anxiety level is an area that requires further investigation. Overall though, the higher level of anxiety demonstrated by those children using Anxiety Amplification as a predominant coping style contributes to the concurrent validity of the CSCI because children's use of strategies that enhance anxiety in social situations are moderately related to their general level of anxiety. Intuitively, it would seem that these children who use ineffective coping strategies in social situations should consequently experience more anxiety than children who are able to cope more effectively in these situations. Higher correlations may not have been obtained because other coping strategies may also be used in combination with Anxiety Amplification.

Those children who used Projection as a predominant coping style scored significantly lower on the anxiety measures than those endorsing Anxiety Amplification. However, their level of anxiety was significantly higher that those who reported frequent use of Denial strategies. Blaming others appears to reduce anxiety temporarily, but other factors related to one's conduct with peers may contribute to higher anxiety than a more non-directive approach to disowning the responsibility.

Students who reported frequent use of Denial strategies on the CSCI demonstrated the lowest level of Peer Anxiety and Overall Anxiety. This suggests that children who tend to make a conscious effort to deny the importance of social conflicts may do the same in other contexts, which may minimize anxiety levels. Children who predominantly used Positive Coping strategies demonstrated significantly higher overall anxiety than those using denial strategies. This supports previous explanations that children who acknowledge the seriousness of the situation may have temporary feelings of distress; however, this anxiety may spur them on to resolve the situation through purposeful actions or thoughts.

Peer Relatedness and Popularity. Children whose responses indicated frequent use of Projection strategies in negative peer interactions demonstrated significantly lower levels of Emotional Security with their peers as compared to children endorsing the other three coping strategies. A more complex procedure for measuring sociometric status would have been useful to investigate if these children were actually rejected more by their peers than other children. However, children who frequently blame others in situations of negative peer interactions, tended to nominate other children who use the same coping strategy. For children who do not use Projection as a coping style, this tendency to blame others for negative peer interactions is likely an undesirable quality. The sociometric measures which were used supported this proposition in that children classified as having low sociometric status endorsed Projection at higher levels than those in other sociometric groups. An alternative explanation for this finding is that low social status exacerbates one's tendency to blame others due to feelings of helplessness and inablity to control one's relations with peers. Forming peer groups with other children who use Projection as predominant coping style may also prevent these children from gaining more acceptance from their peers.

Children who reported a frequent use of Anxiety Amplification strategies had significantly lower Emotional Security compared to those using predominantly Denial strategies, but not significantly lower than those using predominantly Positive Coping strategies. Children using denial strategies demonstrated the highest levels of Emotional Security, possibly because they are less sensitive to peer rejection than children who infrequently use Denial to cope with negative peer interactions. This finding may also suggest that children with higher levels of Emotional Security appear to be more likely to shrug off a negative peer interaction while less secure children may see the situation as threatening and take immediate steps to adjust to the situation.

Students reporting frequent use of Projection and Anxiety Amplification demonstrated a stronger desire for increased closeness with peers compared to those using predominantly Denial strategies. Mellor-Crummey (1989) found that children with a Deprived pattern of relatedness to peers (low Emotional Security and high endorsement of the desire for increased proximity) tended to use Anxiety Amplification as a predominant coping style. In the present study, children in this relatedness category did not endorse Anxiety Amplification strategies more than children in other categories. In addition, children who predominantly used Anxiety Amplification strategies were not more likely to have lower sociometric status than those endorsing Denial or Positive Coping. This suggests that teachers need to be aware of the possibility that children who cannot cope well with stress may be as popular with their peers as other children, despite their tendency to respond with higher levels of anxiety when faced with negative peer interactions.

The responses of children using predominantly Denial coping strategies indicated that they felt content with their level of psychological proximity with their peers. These children appear to be less easily upset by negative peer interactions and seem to accept their relationship with their peers with a more easy going attitude. Children who reported frequent use of Positive Coping strategies demonstrated a stronger desire for increased emotional proximity with peers and somewhat less Emotional Security with peers compared to those using predominantly Denial strategies. It is possible that these children's moderate anxiety and lack of optimum Emotional Security with peers may lead them to take more definite steps to resolve a conflict with peers rather than to dismiss it as unimportant (as those using predominantly Denial strategies may do). The levels of popularity for these children appear to be similar to that of most other children.

Peer Relatedness categories were created and the results indicated that children in optimum classification were less likely to use projection as their predominant coping style. Children who felt emotionally secure with their peers and stated that they are satisfied with the closeness they experience with their peers, were less likely to blame others for negative peer interactions. However, results also indicated that these children were not significantly more likely to use effective strategies than those not classified as having optimum relatedness to peers, as was found by Mellor-Crummey (1989). The postive coping configuration consisted of more children with optimum relatedness with peers than those classified as having detached or deprived relatedness. This finding is consistent with that of Mellor-Crummey's (1989). In the present study, children who were classified as Detached endorsed projection strategies more highly than children not classified as Detached. Children who do not feel secure with their peers and are not concerned about their level of closeness with peers, may be more likely to blame others for a negative interaction rather than take steps to reconcile the situation. Children in the Deprived category were not significantly different on their CSCI responses than those not in the Deprived category, possibly due to the small sample size and strict selection criteria of this relatedness category.

Self Perception Profile for Children

Analysis of the SPP resulted in no main effect by grade although some correlations approached significance. Harter (1985) reported that levels of Global Self Worth vary with age for middle school students (grades six, seven, and eight). In the present study, the level of Global Self Worth was not significantly different across grades. When comparing responses of boys and girls, however, the analysis indicated that girls experience lower Global Self Worth than boys, except in grade four. Girl's Global Self Worth appears to more closely follow a trend of decreasing self concept with age than does that of boys.

Children's Global Self Worth was the most highly endorsed subscale, possibly because it is more general and reflects global perception on one's self worth as a person as opposed to the other subscales which relate to specific areas of competence (Harter, 1985). Also, children may more readily express their worth as a person, despite not feeling as good as others in selected areas. Children's responses indicate that self concept, with regards to their physieal appearance, was weaker than the other domains measured on this self report measure. The emphasis of beauty and the pursuit of a smart-looking image in our society may contribute to children feeling that they are less than adequate in this area. Harter (1985) discusses the importance of this domain. The results of her study indicated that physical attractiveness was the highest contributor to self worth for children. It appears that children who are attractive may experience higher self worth, compared to children who are similar, yet unattractive.

Children with higher Overall Self Concept and Social Acceptance have higher Emotional Security with peers, lower levels of Peer Anxiety and Overall Anxiety, and are more content with their level of closeness with peers. In contrast, children whose responses indicated lower levels of self concept demonstrated less Emotionally Security with their peers and a stronger Desire for Psychological Proximity with them. Consequently, these children experienced more anxiety when in the company of their peers. Examination of self concept and popularity indicate that children with higher sociometric status demonstrated significantly higher levels of Overall Self Concept and Social Acceptance. This finding supports the research of Chiu (1987).

Children's Concerns Inventory

Analysis of the CCI indicated a main effect for gender, but not for grade. Girls in each of grade four, five, and six demonstrated significantly higher levels of Overall Anxiety compared to boys. Girl's responses to items involving peer interactions also indicated that girls demonstrated higher levels of Peer Anxiety than did boys. These findings are consistent with the findings of Buhrmester (1985) in a sample of grades five and six students. Compared to boys, girls reported that they desired closer relations with their peers than they were presently experiencing. Distress surrounding this unsatisfactory closeness with peers may contribute to girls' higher levels of Peer Anxiety.

Higher levels of anxiety were correlated with lower levels of self concept and Emotional Security with peers. This supports research by Strauss, et al.(1988), who examined children with anxiety disorders and found that their level of peer acceptance was considerable lower than that of typical children. However, results of the present study suggest that children may not need to experience pathological levels of anxiety before their perceptions of self and others are affected. In addition, high anxiety levels in some children may prevent them from participanting in activities which may help to enhance their feelings of competence. Thus, a downward spiral of self esteem may be strongly related to feelings of anxiety and fear (Harter, 1989).

Children completing the questionnaires appeared to be most concerned about their school conduct, followed by academic performance, social acceptance, and physical activities. This was evident in both boys and girls and is similar to that of other children completing the CCI (Buhrmester, 1985). Children's concern regarding their behavior in the classroom may have been partially due to lectures about the consequences of bad behavior and/or lectures on the relationship between good class behavior and academic success. The most highly endorsed item referred to informing parents about misbehavior. This suggests that parent's approval or disapproval was of considerable concern to the children in this study.

Peer Relatedness Scale

No significant differences were evident between the levels of emotional security for grade and gender. However, most children's responses were high (three's and four's out of four) and a ceiling effect may have masked differences that may be present. In addition, the distinctiveness of some of the items may not have been understood by the younger children. For example, some of the children may have been unable to distinguish between feeling bad, bored, and/or unhappy. This factor may have limited the children's abilities to answer each item accurately. On the second Peer Relatedness subscale, girls' reported a strong desire for increased emotional proximity with their peers. Their responses to the item "I wish I had more friends", was also endorsed more highly than by the boys. The finding that grade five students rated this item significantly more highly than grade four and grade six student is puzzling. Does some significant change occur between grades four and six? Overall, results of this study indicate that girls are more willing to acknowledge their concern regarding peer relationships than are boys. Whether or not girls and boys differ in their desire for emotional closeness with their peers requires further examination.

Responses on the emotional security subscale of the Peer Relatedness Scale correlated moderately with the social acceptance subscale of the SPP. The lack of strong internal validity of the Peer Relatedness Scale may have limited the correlation between the two instruments. These two instruments, both designed to measure feelings of acceptance by peers, should be more highly correlated than indicated by the results of this study. The Peer Anxiety subscale of the CCI was moderately correlated with the Desire for Psychological Proximity subscale of the Peer Relatedness Scale. This observed correlation suggests that children who are unsatisfied with their level of closeness with their peers often experience anxiety in situations involving their peers. These children may experience peer interactions as stressful because they are striving to behave in such a way that will grant them closer intimacy with peers.

Sociometric Measures

Children were grouped by sociometric status (low, medium, and high) and these scores were compared with the children's responses on other measures. Sociometric status was assigned based on each student's class because this measure controlled for class size. However, sociometric assignment using the overall distribution was very similar (R= .93). No significant grade or gender differences were found for sociometric status. This finding was expected, given the nature of sociometric assignment (ratios of low, medium, and high were held constant in each class). Also, girls frequently nominated other girls and boys frequently nominated other boys, which likely minimized gender effects.

The data resulting from ANOVAs between the various questionnaires and popularity indicated significant differences between sociometric groups. Children with higher sociometric status demonstrated higher levels of self concept, lower levels of Peer Anxiety and Overall Anxiety, and more satisfaction with their level of psychological closeness with peers. Other research in this area has found similar conclusions (Boivin and Begin, 1989; Rubin, 1990). Nomination of peers was not affected by the type of project that the children were to participate in.

Implications of the Study

Ryan (1988) stated that the ability to categorize a child's coping style based on their responses on a questionnaire would be a valuable instrument for teachers and counsellors. The research contained in this thesis has attempted to provide structural validity for the CSCI as such an instrument. Mellor Crummey (1989) suggested that the CSCI is a simple, practical method to identify children who use ineffective coping strategies when faced with negative peer interactions. Results of the present study provide insights into how this questionnaire would be most useful for people working with children.

The CSCI would likely be most effective as a screening instrument, as opposed to a diagnostic tool. One reason for this is the lack of consistency between children's interview responses and their responses on the CSCI. Children's responses while being interviewed on how they cope with certain situations is influenced by a variety of factors. In a questionnaire, children may feel less pressured to provide socially desirable responses. However, a child's mood, lack of understanding, and/or lack of attention may have a considerable influence on their choice of responses. Teachers must be sensitive to this aspect of self-report instruments and take steps to ensure that children are motivated to produce honest answers and that they understand each item. Also, children do not always act in ways consistent with their verbal description of their behavior. Interpretations of children's responses on the CSCI must consider this fact of human behavior. Observation of a child identified as an ineffective social coper may be required to confirm whether or not the CSCI scores are reflective of the actual coping strategies of the child. The CSCI should also be supplemented by a discussion or feedback sheet to compensate for the non-interactive format of a self-report questionnaire. Results of factor analysis suggests that children may use other effective coping strategies that are not captured by the either of the positive coping subscales. These additional strategies may be evident through discussions.

Another reason why the CSCI should be limited to a screening instrument is that a child's coping style in one situation may not be generalizable to other areas. This instrument would be considerably more valuable if it could categorize a child's coping style in all situations where stressful conflicts occur. The CSCI is not designed for this purpose and it should not be used as a general measure of a child's ability to cope with stress. However, the moderate correlation between anxiety level and the Anxiety Amplification subscale suggests that responses on this questionnaire are related to a child's overall ability to cope with stress.

The results of the present study also have implications for intervention strategies. The items in the Anxiety Amplification and Projection subscales appear to provide good examples of responses that are not profitable for effective coping. Children need to learn not to focus on the negative emotions that they are experiencing and to try to avoid worrying about being rejected again. Blaming others for the situation is another strategy that should be avoided. Since teaching children what not to do is a difficult task, focussing on effective coping strategies may be more productive. Results of this study indicated that taking steps to minimize one's attention to negative social interactions may be the most effective strategy. However, caution must be used. Repression of one's feelings is not always benificial. Using denial in minor peer conflicts such as those addressed in the CSCI may call for different coping strategies than other stressors that children experience. Negotation, compromise, and attempting to determine the other person's point of view, are strategies that are almost always effective strategies to use in coping with social conflict. A variety of additional positive coping strategies have been identified in the literature and can provide insight into the types of stress management techniques that children of different ages can be taught.

A third implication of the present study is the relationship between coping style, self concept, peer relatedness, and popularity. Unfortunately, a correlational study does not permit one to investigate causal relationships. The data obtained in this study can be interpreted in a number of ways. Children who feel competent with themselves and with others naturally exercise coping styles that serve to reduce their anxiety levels. Or, children who have developed effective coping styles may gain positive feedback from others and consequently their self concept is enhanced. However, it is also possible that an interdependent relationship exists between these factors. A focus on one particular component may not bring about direct changes in the other areas, but, as confidence in each area is enhanced, the end result may be greater than the sum of each part. This interpretation has specific implications for intervention. Children who are identified as having ineffective coping styles, according to the CSCI, need intervention in each of the areas found to be correlated with this coping style. Specifically, levels of self concept must be enhanced and social skills to foster positive peer relations need to be taught.

Summary and Considerations for Future Research

The present study examined how children's strategies for coping with stress are related to their self concept, peer and overall anxiety, peer relatedness, and popularity. The CSCI appears to be a useful instrument for identifying children who use ineffective strategies to deal with negative peer interactions. Children who demonstrated frequent use of ineffective strategies, such as blaming others or focussing on the negative emotions surrounding the situation, demonstrated significantly lower levels of self concept and emotional security with their peers, higher levels of peer anxiety and overall anxiety, and less satisfaction with the level of psychological proximity they experienced with their peers. Children with a higher self esteem and more secure relationships with peers responded in a more positive, problem-solving manner.

The results of this study indicated that the CSCI requires a number of minor revisions. The criteria for selecting students into coping configurations requires some modification, as discussed previously. The Positive Coping and Denial subscales need further revision and testing to validate their use in identifying children who are able to implement effective coping strategies. A closer investigation of the use of Denial strategies is necessary. In what ways are Denial strategies effective in enhancing one's relatedness to peers and minimizing one's level of anxiety? How effective are Denial strategies in other stressful contexts? The gender differences in the use of Projection and Anxiety Amplification coping styles also need to be investigated. Why are girls more likely to focus on the negative emotions surrounding peer conflicts, while boys are more likely to blame others for the situation? Given the gender differences in the use of ineffective coping styles as indicated in the present study, different types of stress management interventions may be needed for boys than for girls.

In order to further enhance the psychometric properties of the CSCI, the generalizability of this instrument to other grades, races, and socio-economic levels needs to be examined. As Mellor-Crummey (1989) indicated, investigation into the relationship between cognitive development and coping styles would be an interesting area of study. Do children of specific ages naturally develop different coping styles that are compatible with their level of intellectual development? Is there a sequence of coping styles that is relatively consistent across the lifespan? Longnitudinal studies on how children develop maladaptive coping strategies may provide some insight into the process of developing responses to stress.

Research in the area of stress is expanding rapidly. Given the levels of stress that many children in our society experience on a daily basis, this knowledge is desperately needed. Children face many transitions and with each change comes additional stress. A challenge that faces every child-care worker is in helping their children to understand how stress influences their lives and how they can respond to it effectively.

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Appendix A

Parent Information Letter

Dear Parent/Guardian,

As a researcher and graduate student at the University, I am engaged in a project to determine what strategies children use to cope with the stress they experience with their peers. How are children's ways of dealing with peer rejection related to how they feel about themselves and how they relate to other children? The information gained from this project may lead to the provision of a quick and accurate instrument which can identify children that are not coping well with stressful peer interactions. These children can then be given special assistance in developing effective strategies for dealing with these types of stress.

I would like to include your child in this project. I am presently asking children in grades four, five, and six to complete a number of questionnaires which relate to how they respond in a potentially stressful situation, such as when their friends leave them out of various activities. Other items on the questionnaires deal with identifying things that worry students, how comfortable they are with their peers, and how they feel about themselves. These questionnaires will be completed by the children during classtime and will take approximately thirty-five minutes.

This study has been approved by the Department of Educational Psychology Ethics Review Committee at the University of Alberta and the St. Albert School District. The Principal at your child's school is aware of the project. The study has no bearing on the children's classroom activities and participation by your child is completely voluntary. The children's names and reponses will be kept confidential. To indicate whether you approve of your child's participation, please return the attached parental permission form to your child's teacher as soon as possible.

If you would like more information about the project, please call Wanda at 452-8834, or leave a message with the Department of Educational Psychology at 492-5245.

Thank you for your consideration.

Cordially,

Wanda Rowat

Wanda Rowat
MEd Candidate

E.W. Romaniuk, PhD
Department Chairman and Thesis Supervisor

Appendix B

Parental Consent Form

Children's Social Coping

Please return this form to indicate whether or not your permission is granted for your child to particpate in this study. Return the form to your child's teacher by ______________________________. Thank you in advance for your reply.

Date:

Permission Granted:

____________________________ (child's name) has my permission to participate in the study examining the relationship between children's social coping and their peer interactions. Note: If my child later decides not to participate, he or she may withdraw at any time.

____________________________ Parent/Guardian signature

____________________________ Phone number

Permission NOT Granted:

____________________________ (child's name) does not have my permission to participate in the study examining the relationship between children's social coping and their peer interactions.

____________________________ Parent/Guardian signature

Appendix C

The Children's Social Coping Inventory (CSCI)

When my friends leave me out:
When my friends don't go along with my ideas:

Positive Coping Items

I try to get them to include me
I ty to find out why they left me out
I go and talk to them about what happened
I think about things that make me feel good about myself

I think about the times everyone did what I wanted
I try to think of a better idea
I try to find out why they didn't like my idea

Denial Items

I forget about it
I say that I don't care
I tell myself it doesn't matter
I go on as if nothing had happened

I tell myself it doesn't matter
I don't let it bother me
I forget about it

Anxiety Amplification Items

I worry that they don't like me
I feel really stupid
I worry about whether it will happen again
I feel that no one likes me

I tell myself it was a bad idea
I feel really ashamed
I worry they'll think I'm dumb

Projection Items

I tell myself I'll never play with them again
I tell myself they are stupid for not asking me
I plan ways to get back at them

I tell myself that they're too dumb to realize my idea was good
I feel really mad at them
I tell myself that they never listen to anyone's ideas
I decide I won't listen to any of their ideas

Appendix D

Self Perception Profile for Children (SPP)

Global Self Worth Items

Some kids are often unhappy with themselves	**BUT**	Other kids are pretty pleased with themselves.
Some kids don't like the way they are leading their life	**BUT**	Other kids do like the way they are leading their life.
Some kids are happy with themselves as a person	**BUT**	Other kids are often not happy with themselves.
Some kids like the kind of person they are	**BUT**	Other kids often wish they were someone else.
Some kids are very happy being the way they are.	**BUT**	Other kids wish they were different.
Some kids are not very happy with the way they do alot of things	**BUT**	Other kids think the way they do things is fine.

Social Acceptance Items

Some kids find it hard to make friends	**BUT**	Other kids find its pretty easy to make friends.
Some kids have alot of friends	**BUT**	Other kids don't have very many friends.
Some kids would like to have alot more friends	**BUT**	Other kids have as many friends as they want.
Some kids are always doing things with alot of kids	**BUT**	Other kids usually do things by themselves.
Some kids wish that more people their age liked them	**BUT**	Other kids feel that most people their age do like them.
Some kids are popular with others their age	**BUT**	Other kids are not very popular.

Scholastic Competence Items

Some kids feel that they are very good at their school work	**BUT**	Other kids worry about whether they can do the school work assigned to them.
Some kids feel like they are just as smart as as other kids their age	**BUT**	Other kids aren't so sure and wonder if they are as smart.
Some kids are pretty slow in finishing their school work	**BUT**	Other kids can do their school work quickly.
Some kids often forget what they learn	**BUT**	Other kids can remember things easily.
Some kids do very well at their classwork	**BUT**	Other kids don't do very well at their classwork.
Some kids have trouble figuring out the answers in school	**BUT**	Other kids almost always can figure out the answers.

Behavioral Conduct Items

Some kids often do not like the way they behave	**BUT**	Other kids usually like the way they behave.
Some kids usually do the right thing	**BUT**	Other kids often don't do the right thing.
Some kids usually act the way they know they are supposed to	**BUT**	Other kids often don't act the way they are supposed to.
Some kids usually get in trouble because of things they do	**BUT**	Other kids usually don't do things that get them in trouble.
Some kids do things they know they shouldn't do	**BUT**	Other kids hardly ever do things they know they shouldn't do.
Some kids behave themselves very well	**BUT**	Other kids often find it hard to behave themselves.

Athletic Competence Items

Some kids do very well at all kinds of sports	BUT	Other kids don't feel that they are very good when it comes to sports.
Some kids wish they could be alot better at sports	BUT	Other kids feel they are good enough at sports.
Some kids think they could do well at just about any new sports activity they	BUT	Other kids are afraid they might not do well at sports they haven't ever tried.
haven't tried before Some kids feel that they are better than others their age at sports	BUT	Other kids don't feel they can play as well.
In games and sports some kids usually watch instead of play	BUT	Other kids usually play rather than just watch.
Some kids don't do well at new outdoor games	BUT	Other kids are good at new games right away.

Physical Appearance Items

Some kids are happy with the way they look	BUT	Other kids are not happy with the way they look.
Some kids are happy with their height and weight	BUT	Other kids wish their height and weight were different.
Some kids wish their body was different	BUT	Other kids like their body the way it is.
Some kids wish their physical appearance (how they look) was different	BUT	Other kids like their physical appearance the way it is.
Some kids wish something about their face or hair looked different	BUT	Other kids like their face and hair the way they are.
Some kids think that they are good looking	BUT	Other kids think that they are not very good looking.

Appendix E

Children's Concern Inventory (CCI)

Social Anxiety Items

How worried are you that maybe you're not as popular as you'd like to be?

How worried are you that maybe other kids don't really like to do things with you all that much?

When a friend gets mad at you, how nervous do you get that they might not want to be your friend anymore?

How worried are you that you don't have as many friends as you might like?

How worried are you about keeping the friends you have?

How worried do you get about being liked by the kids at school?

Academic Performance Items

How worried are you about how you'll do on your report card?

How nervous do you get when the teacher hands back grades on class assignments?

How nervous do you get when the teacher goes to give out report cards?

How worried are you about getting good grades on class assignments?

School Conduct Items

How worried are you about getting in trouble and being sent to the principals' office?

How worried do you get about the teacher getting angry at you for not acting right at school?

How nervous do you get about misbehaving and getting punished at school?

How worried are you about getting in trouble at school and having the teacher tell your parents about it?

Sports Competition Items

How worried are you about playing well in sports contests?

How nervous do you get when the teacher in gym class says you're going to have a contest to see who's best at something?

How worried do you get about doing well at a new outdoor sport?

How nervous do you get when the teacher in gym class wants to see how many sit-ups or push-ups you can do in a short time?

Appendix F

The Relatedness Scale

Emotional Security Items

When I am with my friends, I feel relaxed.
When I am with my friends, I feel bad.
When I am with my friends, I feel happy.
When I am with my friends, I feel mad.
When I am with my friends, I feel importnat.
When I am with my friends, I feel ignored.
When I am with my friends, I feel bored.
When I am with my friends, I feel unhappy.

Desire for Proximity Items

I wish I had more friends.
I wish my friends spent more time with me.
I wish my friends liked me more.
I wish my friends understood me better.
I wish my friends paid more attention to me.

Appendix G

Factor Analysis of Mellor-Crummey's (1989) CSCI Items

Item	Subscale	Factor 1	Factor 2	Factor 3	Factor 4
1	PC				.53
7	PC				.62
12	PC				<.27
17	PC				.60
19	PC				.58
24	PC				.62
27	PC				.61
3	A	.74			
5	A	<.27			
15	A	.66			
16	A	.52			
20	A	.62			
21	A	.65			
22	A	.56			
4	P		.72		
9	P	.41	.45		
10	P		.70		
11	P		.55		
14	P		.64		
18	P		.68		
28	P		.70		
2	D			.53	
6	D			.55	
8	D			<.27	
13	D	-.42		.49	
23	D			.63	
25	D			.68	
26	D			.65	

Appendix H

Instructions for Administration of Questionnaires

Hello! My name is Mrs. Rowat and this is my friend, Mrs. Engler. Today we are going to be completing a survey with your class. This survey will help us to know more about how you feel in school and how you feel when you are with your friends. Later, I'll be asking you about things that worry you and what you do when certain things happen.

This is not a test and there are no right or wrong answers. This is really just for you to tell me what you think and the sort of things that are true for you.

Some of our questions may sound alot alike to you and you may wonder why we are asking the same things over and over. Well, we need to ask you about these things a couple of different ways and a couple of different times for us to really know how you feel. Does that make sense to you?

Your answers will **not** become part of your school record. Anything you write will be **confidential**, that means that I won't tell other people, like your teachers, classmates, or parents what you said.

I will be explaining how to do each page as we go along. Do you have any questions before we start?

Administration of the Children's Social Coping Inventory

> "Please turn to the yellow page titled, 'Some Days Things Don't Go Right!'
> I will read the first part of the question and each of the endings. For each different ending, you decide if the statement is very true, sort of true, not very true, or not at all true of you and circle that answer."

Reminder: "Is that very true, sort of true, not very true, or not at all true of you?"

Administration of the Self Perception Profile for Children (see Harter, 1985)

"Please turn to the blue page titled, "What I Am Like'.
This is a survey, not a test. There are no right or wrong answers. Since kids are very different from one another, each of you will be putting down something different. Listen carefully while I explain how these questions work. Look at the top question marked (a) Some kids would rather play outdoors in their spare time but other kids would rather watch T.V. This question talks about two kinds of kids, and we want to know which kids are most like you.

(1) So, what I want you to decide first is whether you are more like the kids on the left side who would rather play outdoors, or whether you are more like the kids on the right side who would rather watch T.V. Don't mark anything yet, but first decide which kind of kid is most like you, and go to that side of the sentence.

(2) Now, the second thing I want you to think about, now that you have decided which kind of kids are most like you, is to decide whether that is only sort of true for you, or really true for you. If it's only sort of true, then put an X in the box under sort of true; if it's really true for you, then put an X in that box, under really true.

(3) For each sentence you only check one box. Sometimes it will be one one side of the page, another time it will be on the other side of the page, but you can only check one box for each sentence. You don't check both sides. Just the one side most like you.

(4) Okay, that one was just for practice. Now we have some more sentences which I'm going to read out loud. For each one, just check one box, the one that goes with what is true for you, what you are most like.

Prompt: Remember, only put an X in one of the boxes for each question.
Sometimes it might be on this side of the page sometimes it might be on the other side.
If you have any questions, put up your hand and Mrs. Engler will come and answer your question.

Administration of the Children's Concerns Inventory

"Please turn to the pink page titled 'Worries I Have'. I will read each sentence. You decide if you think you get very worried, somewhat worried (that means, a little worried), not too worried, or not at all worried. Circle only one answer. Let's practice on letter a) How worried do you get about crossing the street alone? Do you get very worried, somewhat worried, not too worried, or not at all worried"

Prompt: "How worried do you get? Circle one answer."

Administration of the Peer Relatedness Scale

"Please turn to the green page titled 'When I am with my friends". Read each sentence with me and then decide if the statement is very true, sort of true, not very true, or not at all true of you. Circle just one answer."

Prompt: "How true is this statement for you?"

Administration of the Sociometric Measure

"Turn to the back of the green page. It says 'Who I Would Pick'.
Let's talk about some kids you know here at school. From this list (point to blackboard), write down the name of the child you would most like to work with on a fun project in school. Now give me your second choice. Now, write down the name of the child you would most like to work with on a project that's going to be graded. Now give me your second choice."

"Cover your answers when you are finished. Go ahead and try the maze at the bottom of the page, when you are finished."

Prompt: "Only pick people that are in the class with us right now."

"You can pick the same person for the fun and graded part but you need a second choice for each part, too, and that person has to be different."

Appendix I

Follow Up Letter to School Principals and Parents

Dear Principal/Parent,

I trust you have had a enjoyable summer and are looking forward to the new school year that has just begun! I have had a busy summer and I am now completing the study on children's coping styles and how they relate to their view of themselves and their peers. I would like to take this opportunity to thank you again for your participation in this project, it was much appreciated! After examining the children's responses to the questionnaires, many interesting results emerged. The findings of the study are briefly described below:

- The Children's Social Coping Inventory appears to be a useful instrument for identifying children who use ineffective strategies to deal with negative peer interactions. Approximately, 30% of the children were classified as children who frequently use ineffective strategies in situations where they were left out by their peers.

- Children who demonstrated frequent use of ineffective strategies, such as blaming others or focussing on the negative emotions surrounding the situation, demonstrated significantly lower levels of self concept and emotional security with their peers, higher levels of peer anxiety and overall anxiety, and less satisfaction with the level of psychological proximity they experienced with their peers.

- Children who were categorized as unpopular also reflected lower levels of self concept, higher levels of anxiety, and a stronger desire for increased proximity with peers. However, children whose predominant coping style was to focus on the negative emotions surrounding the situation, were not less popular than other children. This suggests that it may not only be the unpopular children who experience difficulty coping with the stress of negative peer interactions.

- Girls' responses indicated that they experience more anxiety when they are with their peers and desire to have more emotional closeness with them. Girls were more likely to use positive coping strategies, such as negotiation and compromise, to address the negative peer interactions and were also more likely to respond in ways that enhanced their anxiety (for example, by feeling ashamed or worrying that the same situation may happen again).

- Boys' responses indicated that in situations where they were left out by their peers, they were more likely to blame others for the situation, compared to girls. Unpopular children also tended to use this strategy in response to being left out by others. Children whose responses indicated that they used this coping strategy frequently, demonstrated significantly lower levels of emotional security with peers. It is possible that children use a coping strategy such as this when they feel a sense of helplessness about having positive relationships with peers that they would like to be friends with.

Results of this study suggest that a considerable number of children in grades four, five, and six, have difficulty coping with the situation of being left out by their peers. Children who use ineffective coping strategies seem to share a low perception of themselves and considerable concern about their relationship with their peers. When helping these children to learn more effective coping strategies, special attention needs to be given to enhancing feelings of self worth and social acceptance.

If you have any questions or comments about this study, I would be pleased to hear from you! My number is 452-8834. Thank you again for your participation in this project!

Cordially,

Wanda Rowat

Wanda Rowat
MEd Candidate

Appendix J

Means and Standard Deviations by Grade and Gender Mellor-Crummey (1989)

	Positive Coping		Anxiety		Projection		Denial	
	Mean	St.dev.	Mean	St.dev.	Mean	St.dev.	Mean	St.dev.
Gr. 3-Girls	3.14	.53	2.26	.77	1.88	.76	2.76	.72
Gr. 3-Boys	3.01	.63	1.93	.64	2.00	.69	2.74	.71
Grade 3	3.07	.58	2.08	.72	1.95	.72	2.75	.71
Gr 4-Girls	3.08	.51	2.35	.72	1.95	.66	2.60	.64
Gr 4-Boys	2.98	.60	2.14	.67	2.20	.78	2.79	.63
Grade 4	3.03	.55	2.24	.70	2.08	.73	2.70	.64
Gr 5-Girls	3.02	.49	2.42	.71	1.90	.56	2.56	.61
Gr 5-Boys	2.96	.49	2.13	.68	2.28	.68	2.76	.54
Grade 5	2.99	.49	2.27	.71	2.10	.65	2.66	.58
Gr 6-Girls	2.67	.61	2.29	.77	1.95	.66	2.55	.54
Gr 6-Boys	2.67	.65	1.90	.65	2.09	.81	2.47	.67
Grade 6	2.67	.63	2.08	.73	2.03	.75	2.51	.61
All Girls	3.01	.54	2.33	.74	1.92	.66	2.62	.64
All Boys	2.93	.60	2.04	.67	2.93	.60	2.71	.64
Total	2.97	.57	2.18	.72	2.04	.71	2.67	.64

Appendix K

Factor Analysis of the Peer Relatedness Scale

Item	Factor 1	Factor 2	Factor 3
1	.115	.159	.734
2	.603	.258	.259
3	.331	-.003	.629
4	.667	.097	.279
5	.190	-.022	.679
6	.663	.338	.171
7	.606	.219	.087
8	.704	.213	.202
9	.755	.059	.049
10	.216	.709	-.038
11	.144	.771	-.109
12	.244	.805	.087
13	.053	.682	.324
14	.212	.808	.098

Appendix L

One Factor ANOVAs: Relatedness Categories

A. Optimum Category

	Source	DF	Sum Squares	Mean Squares	F-Test	P Value
Positive Coping	Btwn Groups	1	.838	.838	2.74	.099
	Wthn Groups	240	73.42	.306		
Anxiety Amplific.	Btwn Groups	1	.387	.387	.716	.398
	Wthn Groups	240	129.63	.54		
Projection	Btwn Groups	1	9.77	9.77	19.14	.0001
	Wthn Groups	240	122.53	.511		
Denial	Btwn Groups	1	.491	.491	1.37	.2436
	Wthn Groups	240	86.19	.36		
PA Configuration	Btwn Groups	1	.457	.457	2.61	.1076
	Wthn Groups	240	42.04	.175		
PC Configuration	Btwn Groups	1	.536	.536	5.153	.0241
	Wthn Groups	240	245.00	.104		

B. Deprived Category

	Source	DF	Sum Squares	Mean Squares	F-Test	P Value
Positive Coping	Btwn Groups	1	.089	.089	.286	.593
	Wthn Groups	240	74.17	.309		
Anxiety Amplific.	Btwn Groups	1	.714	.714	1.33	.251
	Wthn Groups	240	129.30	.539		
Projection	Btwn Groups	1	.064	.064	.115	.735
	Wthn Groups	240	132.23	.551		
Denial	Btwn Groups	1	.004	.004	.012	.915
	Wthn Groups	240	86.67	.361		
PA Configuration	Btwn Groups	1	.016	.016	.092	.7624
	Wthn Groups	240	42.48	.177		
PC Configuration	Btwn Groups	1	.009	.009	.081	.7766
	Wthn Groups	240	25.52	.106		

C. Detached Category

	Source	DF	Sum Squares	Mean Squares	F-Test	P Value
Positive Coping	Btwn Groups	1	.947	.947	3.1	.0796
	Wthn Groups	240	73.31	.305		
Anxiety Amplific.	Btwn Groups	1	.659	.659	1.223	.270
	Wthn Groups	240	129.35	.539		
Projection	Btwn Groups	1	5.46	5.46	10.32	.0015
	Wthn Groups	240	126.84	.529		
Denial	Btwn Groups	1	1.30	1.30	3.64	.0575
	Wthn Groups	240	85.38	.356		
PA Configuration	Btwn Groups	1	.281	.281	1.60	.2077
	Wthn Groups	240	42.22	.176		
PC Configuration	Btwn Groups	1	.074	.074	.7	.4037
	Wthn Groups	240	25.45	.106		

Significant Contrasts (Scheffe Test):

CSCI Subscale	
Projection	Optimum category vs. Non-Optimum Category Detached Category vs. Non-Detached Category

Relatedness Category	
Optimum Category	PC Configuration vs. Non-PC Configuration

Appendix M

Two Factor ANOVA: Sociometric Status by Grade and Gender

Source	DF	Sum Squares	Mean Squares	F-Test	P Value
Gender	1	.402	.402	.804	.3709
Grade	2	.001	.001	.001	.9987
Interaction	2	.569	.285	.569	.5667
Error	236	117.97	.5		